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TREASURY DEPARTMENT

Public Health and Marine-Hospital Service of the United States

WALTER WYMAN, Surgeon-General

HYGIENIC LABORATORY.—BULLETIN No. 36

M. J. ROSENAU, Director

APRIL, 1907

STUDIES UPON
HYPERSUSCEPTIBILITY AND IMMUNITY

By

M. J. ROSENAU

and

JOHN F. ANDERSON



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United States Public Health and Marine-Hospital Service.

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CONTENTS.

	Page.
Introduction	7
PART I:	
The sensitizing substance	11
PART II:	
The toxic principle	15
Influence of ferments	15
Influence of alkaloids	16
Influence of salts	16
Influence of miscellaneous substances	17
Influence of formaldehyd	17
Influence of calcium chlorid	18
Influence of freezing	21
PART III:	
Is the toxic principle specific?	23
Horse serum versus other proteid substances	23
Other proteid substances versus horse serum	24
PART IV:	
Other blood serums and other albuminous substances are also toxic	25
Other blood serums	25
Other albuminous substances	25
PART V:	
Hypersusceptibility and immunity produced by bacterial proteids	31
PART VI:	
Comparative toxicity of untreated and refined antitoxic serum	39
PART VII:	
Comparative toxicity of different horse serums	43
Toxicity of "serum antidiphtherique" (Pasteur Institute)	43
Toxicity of normal horse serum (our roan)	44
PART VIII:	
The immunity to hypersusceptibility or "anti-anaphylaxis"	45
PART IX:	
Maternal transmission of hypersusceptibility and immunity	47
Group A, sensitized female, untreated male	47
Group B, sensitized female, sensitized male	49
Group C, immune female, immune male	50
Group D, immune female, untreated male	52
Group E, untreated female, sensitized male	54
Conclusions	54

PART X:

The relations of hypersusceptibility to various influences.....	55
Aggressines	55
Methemaglobin	56
Oxygen.....	56
Diphtheria toxine	57
Tetanus toxine	58
The spleen and the thyroid	58

PART XI:

Miscellaneous	61
Feeding experiments with cooked meat.....	61
Feeding experiments with raw beef	61
Result of cardiac injections.....	62
The guinea pig remains susceptible a very long time	62
The effect of first injections of horse serum into guinea pigs	64

PART XII:

Summary and conclusions.....	65
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STUDIES UPON HYPERSUSCEPTIBILITY AND IMMUNITY.^a

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We have shown^b that horse serum is apparently a bland and harmless substance when injected into a normal guinea pig, but this injection renders the guinea pig susceptible to a subsequent injection of horse serum. At least ten days must elapse between the first and the second injection for this hypersusceptibility to manifest itself.

The present bulletin gives the results of our further work upon this interesting phenomenon. We have endeavored to obtain a deeper insight into the cause and nature of hypersusceptibility and have attempted to localize the phenomenon in certain fluids, cells, or organs of the body.

We foresaw last year that the problem of hypersusceptibility has an important bearing upon the question of immunity and expressed the opinion^c that "resistance to disease may be largely gained through a process of hypersusceptibility. Whether this increased susceptibility is an essential element or only one stage in the process of resistance to disease, must now engage our attention." We can not escape the

^aManuscript submitted for publication April 27, 1907.

^bRosenau, M. J., and Anderson, John F.: A study of the cause of sudden death following the injection of horse serum. Pub. Health and Mar.-Hosp. Serv., Hyg. Lab. Bull. No. 29, 1906.

———: A new toxic action of horse serum. Journ. med. research, Vol. 15, No. 1 (n. s., Vol. 10, No. 1), July, 1906, pp. 179-208.

Anderson, John F.: I. Maternal transmission of immunity to diphtheria toxine. II. Maternal transmission of immunity to diphtheria toxine and hypersusceptibility to horse serum in the same animal. Pub. Health and Mar.-Hosp. Serv., Hyg. Lab. Bull. No. 30, 1906, and Journ. med. research, Vol. 15, No. 2 (n. s., Vol. 10, No. 2), Sept., 1906, pp. 241-260.

^cRosenau, M. J., and Anderson, John F.: Hypersusceptibility. Journ. Am. Med. Assn., Vol. 42, No. 13, Sept. 29, 1906, pp. 1007-1010.

conviction that this phenomenon of hypersusceptibility has an important bearing on the prevention and cure of certain infectious processes. Our work this year upon the hypersusceptibility produced by the bacterial proteids strengthens this belief, for our results prove that the phenomenon of hypersusceptibility to certain proteid substances extracted from the bacterial cell is followed by a definite immunity against infection by the micro-organism.

Since our studies last year several papers have been published which, in the main, have corroborated our findings.

McClintock and King^a gave ten guinea pigs from $\frac{1}{50}$ to 1 c. c. of horse serum by the stomach and thirteen days later 6 c. c. of serum, either subcutaneously or intraperitoneally, without causing symptoms in any of them. They conclude that the sensitizing action of horse serum given by the mouth is not nearly so great as when given subcutaneously or intraperitoneally. This is in confirmation of our reported experiments.

Currie^b has studied the effect of repeated injections of horse serum in persons admitted for treatment in the city of Glasgow Fever and Smallpox Hospital at Belvidere. He concludes that it is apparent from the facts detailed by him that repeated injections of horse serum induce symptoms of supersensitization in man, but it is also apparent that the same facts lend no countenance to the suggestion that the death of persons suffering from diphtheria is to be apprehended as the result of repeated injections of antidiphtheric serum.

Besredka and Steinhardt^c studied with much care certain features of hypersusceptibility to horse serum in guinea pigs; they note that the French serums are much less toxic than those used by Otto in Frankfurt and the serums used by us. Besredka and Steinhardt had a mortality of about 25 per cent when 5 c. c. of serum was given intraperitoneally at the second injection, whereas death was the rule in our experiments under similar conditions. Most of their work was done with doses of 0.05 to 0.25 c. c. given directly into the brain, which either killed or caused grave symptoms in susceptible guinea pigs. Besredka and Steinhardt lay stress upon the production of "anti-anaphylaxis," which we termed "immunity." They found that a single injection of serum given into the peritoneum of a sensitized guinea pig conferred immunity to a subsequent injection of 0.25 c. c. into the brain: in one case the anti-anaphylaxis was present one and a

^a McClintock, Charles T., and King, Walter E.: The oral administration of anti-toxins for prevention of diphtheria, tetanus, and possibly sepsis. *Journ. infec. diseases*, Vol. 3, No. 5, Oct., 1906, pp. 700-720.

^b Currie, J. R.: On the supersensitization of persons suffering from diphtheria by repeated injections of horse serum. *Journ. hyg.*, Vol. 7, No. 1, Jan., 1907, pp. 35-60.

^c Besredka, A., and Steinhardt, Edna: De l'anaphylaxie et de l'anti-anaphylaxie vis-à-vis du sérum de cheval. *Ann. de l'Inst. Pasteur*, Vol. 21, No. 2, Feb. 25, 1907, pp. 117-127.

half hours after the injection into the abdominal cavity. They were unable to demonstrate any protective properties in various organs of immune guinea pigs, confirming our work along the same lines.

Nicollé^a found that guinea pigs were not susceptible to the necrotic action induced by repeated injections of horse serum, as is the case in rabbits; this corresponds with our observations. He also found that daily injections or "spaced" injections, after the method of Arthus, did not induce a high degree of hypersusceptibility in guinea pigs.

Besredka^b questions whether we should not consider this toxic property of horse serum, as well as its antitoxic power. He suggests that a serum, 0.05 c. c. of which when given into the brain will kill or cause grave symptoms in a sensitive guinea pig, should be considered as above the average toxicity and ought to be excluded from use in man.

The work of Otto^c on the "Theobald Smith Phenomenon," and of von Pirquet and Schick^d upon "the serum disease" has been previously referred to.

^a Nicolle, Maurice: Contribution à l'étude du phénomène d'Arthus. Ann. de l'Inst. Pasteur, Vol. 21, No. 2, Feb. 25, 1907, pp. 128-136.

^b Besredka, A.: De la toxicité des sérums thérapeutiques et dumoyen de la doser. Comp. rend. soc. biol., Vol. 62, No. 10, Mar. 22, 1907, pp. 477-478.

^c Otto, R.: Das Theobald Smithschen Phänomen der Serum-Ueberempfindlichkeit. v. Leuthold-Gedenkschr., Bd. 1.

^d von Pirquet, C. Frh., and Schick, B.: Die Serumkrankheit. Leipzig and Wien, 1905, 144 p. 8°.



Part I.

THE SENSITIZING SUBSTANCE.

We ventured the suggestion in our former publication that the substance that sensitizes the guinea pig is the same as that which later poisons it; profound chemical changes perhaps in the central nerve cells, are probably produced by the first injection. Our subsequent work has produced nothing to alter this working hypothesis.

Vaughan^a advances the theory that the first injection of the strange proteid is broken up into components, one of which is toxic, but that the animal is not poisoned because this breaking up takes place slowly. The cells, however, learn from this lesson how to break up the complex molecule, so that when more of the strange proteid is introduced at the second injection it is violently rent asunder, quickly liberating large quantities of the toxic principle of the complex molecule.

Vaughan and Wheeler^b have elaborated this explanation by further studies upon egg-white and bacterial proteids split into poisonous and nonpoisonous portions. These authors believe that when egg-white, or the nonpoisonous portion of egg-white, is injected into a fresh animal certain cells of the body are so influenced that they elaborate a new ferment, which, in the form of zymogen, remains in the cell until activated by the second injection, when it is set free and splits up the egg-white in a manner similar to that used by Vaughan in the laboratory. Vaughan and Wheeler believe that the effect induced in the animal is the same as that caused by the poisonous portions of egg-white as they have split it up in the retort.

Currie^c suggests that the first injection of serum results after an interval in the formation of an antibody. When the second injection of serum is given, after at least ten days from the first, the antibody-producing substance of the second injection of serum and the antibody

^a Vaughan, V. C.: Discussion of "Hypersusceptibility," by M. J. Rosenau and J. F. Anderson. *Journ. Am. Med. Assn.*, Vol. 47, No. 13, Sept. 29, 1906, p. 1009.

^b Vaughan, Victor C., and Wheeler, May: Effects of egg-white and its split products upon animals. A study of susceptibility and immunity. Abstract of papers to be read at twenty-second annual meeting of Assn. Am. Physicians, Washington, May 7-9, 1907, p. 9.

^c Currie, J. R.: On the supersensitization of persons suffering from diphtheria by repeated injections of horse serum. *Journ. Hygiene*, Vol. 7, No. 1, Jan., 1907, pp. 35-60.

produced by the first injection come in contact without delay; their union is rapid; the whole charge of the poisonous substance is quickly set free and the toxic symptoms are sudden and severe.

Besredka and Steinhardt^a had, as a working hypothesis, the following: The sensitized guinea pig which appears in good health has, in spite of its apparent well-being, perhaps a latent lesion of the brain. A second injection of serum, made into the peritoneal cavity twelve days later, is able to awaken this nervous lesion, resulting in grave symptoms or even death.

In view of these theoretical considerations it is important to make further studies upon the sensitizing substance in horse serum and other proteid substances.

The following experiments show that the filtrate from horse serum after precipitation with ammonium sulphate renders guinea pigs sensitive. The filtrate contains most of the serum albumen and very little of the globulins. It is exceedingly weak in antitoxic strength.

G. P. No. 400. Six c. c. antitoxic horse serum (Natl. VIII., 18), intraperitoneally. Marked symptoms.

[Previous treatment: 38 days prior, 5 c. c. filtrate of antitoxic serum, precipitated (NYBH). Subcutaneously.]

This filtrate was kindly furnished us by Dr. W. H. Park from some antidiphtheric serum undergoing the Gibson process of refining.

The following experiments show that formaldehyd does not destroy the sensitizing property of horse serum:

G. P. No. 390W. Six c. c. normal horse (roan) serum, intraperitoneally. Severe symptoms.

[Previous treatment: 47 days prior, 6 c. c. antitoxic horse serum (Natl. XVIII)+ 1 per cent formalin, 23 hours exposure. Subcutaneously.]

G. P. No. 500W. Six c. c. normal horse (roan) serum, intraperitoneally. Very severe symptoms.

[Previous treatment: 29 days prior, 3 c. c. normal horse (roan) serum+5 per cent formalin, 4 hours 30 minutes exposure. Subcutaneously.]

The results with formaldehyd have a special significance in view of the fact that this active reducing agent is capable of destroying the poisonous properties of tetanus and diphtheria toxins.

We have shown before that the sensitizing and poisonous principles in horse serum are not dialyzable through parchment paper. From the following limited experiments it would seem that the sensitizing principle is not dialyzable through a collodion sac when placed in the peritoneal cavity of the animal.

G. P. No. B. Six c. c. normal horse (No. 15) serum, subcutaneously. No symptoms.

[Previous treatment: 32 days prior, collodion sac containing about 3 c. c. normal horse (No. 15) serum placed in peritoneal cavity.]

^a Besredka, A., and Steinhardt, Edna: De l'anaphylaxie et de l'anti-anaphylaxie vis-à-vis du sérum de cheval. Ann. de l'Inst. Pasteur, Vol. 21, No. 2, Feb. 25, 1907, pp. 117-127.

G. P. No. Cx. Collodion sac containing about 3 c. c. normal horse (No. 15) serum placed in peritoneal cavity.

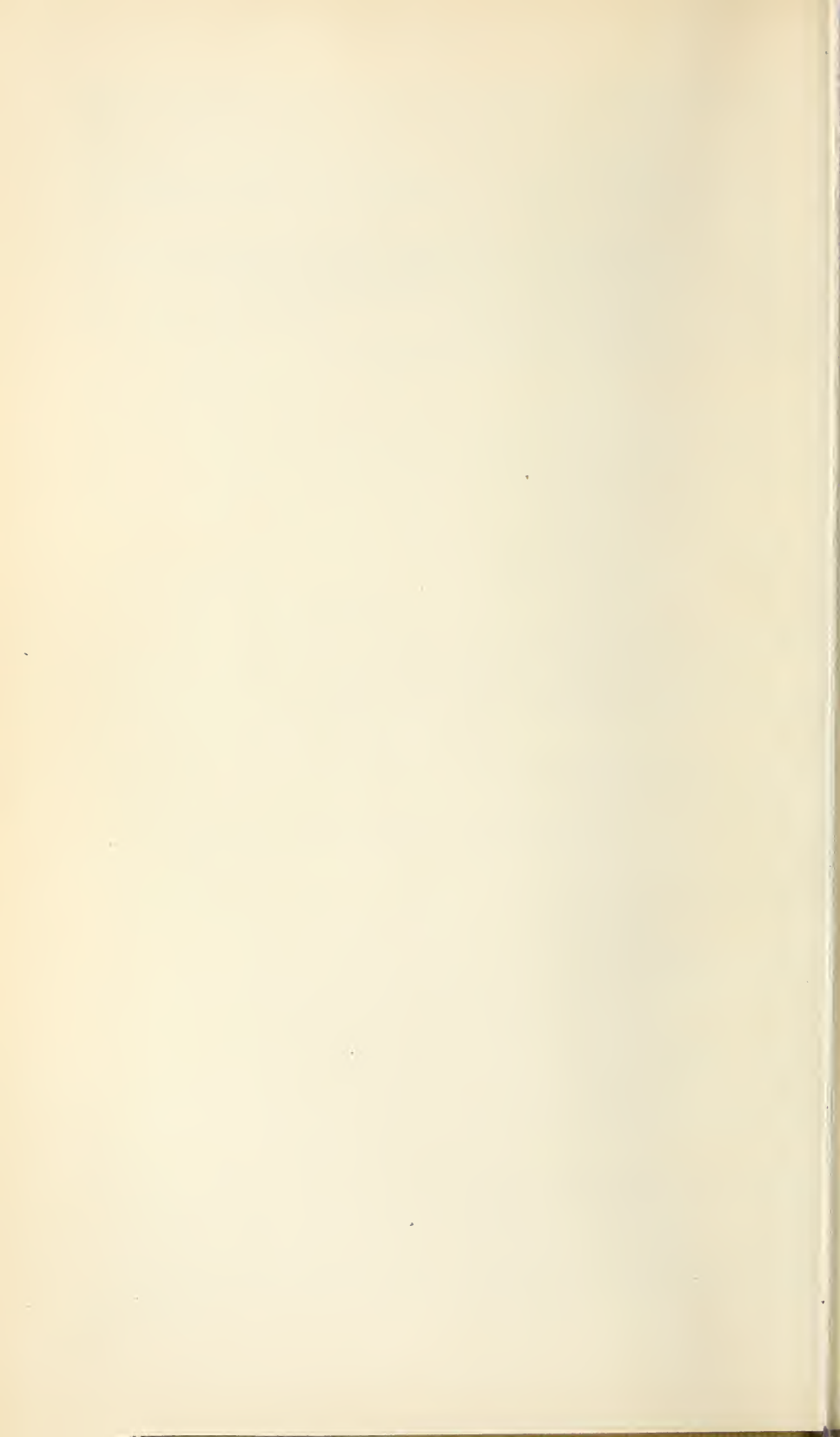
28 days later, 5 c. c. normal horse (roan) serum, subcutaneously. No symptoms.

1 day later, sac removed.

23 days after removal of sac, 5 c. c. normal horse (roan) serum, subcutaneously. Mild symptoms.

By reference to page 62 it will be seen that guinea pigs may be sensitized by injecting horse serum directly into the heart.

Further work upon the action of the sensitizing substance is in progress and will be reported later.



Part II.

THE TOXIC PRINCIPLE.

We added a number of different ferments, alkaloids, and simpler chemical substances to horse serum in order to modify, destroy, or neutralize its toxic action. All these attempts have so far been found unavailing, as will be seen by the following experiments:

FERMENTS.

The ferments were added to the horse serum and allowed to stand at 15° C. over night.

Taka diastase.

G. P. No. 5417. Six c. c. antitoxic horse serum (Natl. IX., 19)+Taka diastase (PDCo.), subcutaneously. Dead, 90 minutes.

[Previous treatment: 27 days prior, 0.139 c. c. toxine No. 5+ $\frac{1}{3000}$ c. c. antitoxic horse serum (A. A 208).]

Pancreatin.

G. P. No. 5413. Six c. c. same serum+pancreatin (PDCo.), subcutaneously. Dead, 40 minutes.

[Previous treatment: 27 days prior, 0.139 c. c. toxine No. 9+ $\frac{1}{3000}$ c. c. antitoxic horse serum (A. A 208).]

Rennin.

G. P. No. 5405. Six c. c. same serum+rennin (Hansen's junket tablet), subcutaneously. Dead, 50 minutes.

[Previous treatment: 27 days prior, 0.139 c. c. toxine No. 5+ $\frac{1}{3000}$ c. c. antitoxic horse serum (A. A 208).]

Myrosin.

G. P. No. 5416. Six c. c. same serum+myrosin (from white mustard seed), subcutaneously. Dead, 25 minutes.

[Previous treatment: 27 days prior, 0.139 c. c. toxine No. 5+ $\frac{1}{7000}$ c. c. antitoxic horse serum (A. A 208).]

Invertin.

G. P. No. 5375. Six c. c. same serum+invertin (yeast), subcutaneously. Dead, 80 minutes.

[Previous treatment: 27 days prior, 0.139 c. c. toxine No. 5+ $\frac{1}{10000}$ c. c. antitoxic horse serum (NYBH 305)].

Emulsin.

G. P. No. 5373. Six c. c. same serum+emulsin (from almonds), subcutaneously. Severe symptoms.

[Previous treatment: 27 days prior, 0.139 c. c. toxine No. 5+ $\frac{1}{3000}$ c. c. antitoxic horse serum (NYBH 305).]

Pepsin in acid solution.

G. P. No. 5409. Six c. c. same serum+pepsin (Wyeth's) rendered acid with HCl, subcutaneously. Severe symptoms.

[Previous treatment: 27 days prior, 0.139 c. c. toxine No. 5+ $\frac{1}{3000}$ c. c. antitoxic horse serum (A. A 208).]

Pepsin in alkaline solution.

G. P. No. 5412. Six c. c. same serum+pepsin (Wyeth's) rendered alkaline, subcutaneously. Severe symptoms. (Died 18 hours later.)

[Previous treatment: 27 days prior, 0.139 c. c. toxine No. 5+ $\frac{1}{560}$ c. c. antitoxic horse serum (A. A 208).]

Ingluvin.

G. P. No. 5418. Six c. c. same serum+ingluvin (Warren), subcutaneously. Severe symptoms. (Died 18 hours later.)

[Previous treatment: 27 days prior, 0.139 c. c. toxine No. 5+ $\frac{1}{560}$ c. c. antitoxic horse serum A. A 208).]

Malt.

G. P. No. 5411. Six c. c. same serum+malt (from corn), subcutaneously. Severe symptoms.

[Previous treatment: 27 days prior, 0.139 c. c. toxine No. 5+ $\frac{1}{560}$ c. c. antitoxic horse serum (A. A 208).]

Papain.

G. P. No. 5414. Six c. c. same serum+papain (Merck's), subcutaneously. Severe symptoms. (Died 18 hours later.)

[Previous treatment: 27 days prior, 0.139 c. c. toxine No. 5+ $\frac{1}{560}$ c. c. antitoxic horse serum (A. A 208).]

ALKALOIDS.

Atropin.

G. P. No. 5408. Six c. c. antitoxic horse serum (Natl. IX, 19)+0.002 atropin sulphate, subcutaneously. Dead, 27 minutes.

[Previous treatment: 27 days prior, 0.139 c. c. toxine No. 5+ $\frac{1}{560}$ c. c. antitoxic horse serum (A. A 208).]

Strychnin.

G. P. No. 5420. Six c. c. same serum+0.001 gm. strychnin sulphate, subcutaneously. Dead, 25 minutes.

[Previous treatment: 27 days prior, 0.139 c. c. toxine No. 5+ $\frac{1}{560}$ c. c. antitoxic horse serum (A. A 208).]

Morphin.

G. P. No. 5406. Six c. c. same serum+0.002 gm. morphin sulphate, subcutaneously. Dead, 35 minutes.

[Previous treatment: 27 days prior, 0.139 c. c. toxine No. 5+ $\frac{1}{560}$ c. c. antitoxic horse serum (A. A 208).]

Caffein.

G. P. No. 5377. Six c. c. antitoxic horse serum (Natl. IX, 19)+0.01 gm. caffen citrate, subcutaneously. Dead, 55 minutes.

[Previous treatment: 28 days prior, 0.139 c. c. toxine No. 5+ $\frac{1}{1060}$ c. c. antitoxic horse serum (NYBH 305).]

SALTS.

Calcium chlorid.

G. P. No. 5342. Six c. c. same serum+0.5 c. c. calcium chlorid, subcutaneously. Severe symptoms.

[Previous treatment: 35 days prior, 0.139 c. c. toxine No. 5+ $\frac{1}{320}$ c. c. antitoxic horse serum (A. A 201).]

Sodium nitrate.

G. P. No. 5376. Six c. c. same serum+0.3 c. c. 1 per cent sodium nitrate, subcutaneously. Severe symptoms.

[Previous treatment: 28 days prior, 0.139 c. c. toxine No. 5+ $\frac{1}{3060}$ c. c. antitoxic horse serum (NYBH 305).]

Sodium chlorid.

G. P. No. 5341. Six c. c. same serum+0.5 gm. sodium chlorid, subcutaneously. Severe symptoms.

[Previous treatment: 35 days prior, 0.139 c. c. toxine No. 5+ $\frac{1}{240}$ c. c. antitoxic horse serum (A. A 201).]

Magnesium sulphate.

G. P. No. 5364. Six c. c. same serum+0.2 gm. magnesium sulphate, subcutaneously. Dead, 38 minutes.

[Previous treatment: 35 days prior, 0.139 c. c. toxine No. 5+ $\frac{1}{1000}$ c. c. antitoxic horse serum (NYBH 306).]

Ammonium sulphate.

G. P. No. 5384. Six c. c. same serum+0.1 gm. ammonium sulphate, subcutaneously. Dead at once.

[Previous treatment: 28 days prior, 0.139 c. c. toxine No. 5+ $\frac{1}{1240}$ c. c. antitoxic horse serum (NYBH 305).]

G. P. No. 7847. Six c. c. normal horse (roan) serum+0.1 gm. ammonium sulphate, subcutaneously. Dead, 23 minutes.

[Previous treatment: 59 days prior, 0.24 c. c. toxine No. 9+ $\frac{1}{300}$ c. c. antitoxic horse serum (A 192).]

MISCELLANEOUS SUBSTANCES.

Ox bile.

G. P. No. 7616. Six c. c. normal horse (No. 15) serum+heated ox bile, equal parts, intraperitoneally 3 hours after mixing. Dead, 11 minutes.

[Previous treatment: 45 days prior, 0.142 c. c. toxine No. 5+ $\frac{1}{380}$ c. c. antitoxic horse serum (A. A 248).]

Animal charcoal.

G. P. No. 7614. Six c. c. normal horse (No. 15) serum+animal charcoal; shaken up well, filtered, let stand for 3 hours; intraperitoneally. Dead, 20 minutes.

[Previous treatment: 45 days prior, 0.142 c. c. toxine No. 5+ $\frac{1}{380}$ c. c. antitoxic horse serum (A. A 248).]

Yeast cells.

G. P. No. 7615. Six c. c. normal horse (No. 15) serum+ground yeast cells; let stand 3 hours; intraperitoneally. Dead, 35 minutes.

[Previous treatment: 45 days prior, 0.142 c. c. toxine No. 5+ $\frac{1}{380}$ c. c. antitoxic horse serum (A. A 245).]

FORMALDEHYD.

In view of the fact that formaldehyd has a destructive action upon such "haptin" substances as tetanus and diphtheria toxins, and in further view of the fact that the sensitizing and toxic principles of horse serum seem to belong to the haptin group of substances in the sense used by Ehrlich, it became interesting to determine what effect formaldehyd would have upon hypersusceptibility produced by horse serum.

Normal serum+5 per cent formalin:

G. P. No. 442. Six c. c. normal horse (roan) serum+5 per cent formalin, subcutaneously. Dead, 12 minutes.

[Previous treatment: 33 days prior, 0.0006 gm. tetanus toxine A+ $\frac{1}{1000}$ c. c. antitoxic horse serum (Hoechst), subcutaneously.]

G. P. No. 7542. Six c. c. same serum+5 per cent formalin; 21 hours exposure; subcutaneously. Dead, 60 minutes.

[Previous treatment: 35 days prior, 0.142 c. c. toxine No. 5+ $\frac{1}{170}$ c. c. antitoxic horse serum (Mul 2100).]

Control G. P. Six c. c. same serum+5 per cent formalin; 21 hours exposure; subcutaneously. Severe symptoms of formaldehyd poisoning.

Antitoxic serum+1 per cent formalin:

G. P. No. 7501. Six c. c. antitoxic horse serum (Natl. IX)+1 per cent formalin; 22 hours exposure; subcutaneously. Dead, 60 minutes.

[Previous treatment: 41 days prior, 0.24 c. c. toxine No. 9+ $\frac{1}{360}$ c. c. antitoxic horse serum (Led 4D).]

G. P. No. 7198. Five c. c. same mixture; 4 days exposure; subcutaneously. Marked symptoms.

[Previous treatment: 59 days prior, 0.142 c. c. toxine No. 5+ $\frac{1}{360}$ c. c. antitoxic horse serum (NYBH 305).]

G. P. No. 7589. Five c. c. same mixture; 4 days exposure; subcutaneously. Mild symptoms.

[Previous treatment: 37 days prior, 0.142 c. c. toxine No. 5+ $\frac{1}{1700}$ c. c. antitoxic horse serum (Park ppt. 305-306).]

Normal serum+5 per cent formalin:

G. P. No. 7776. Six c. c. normal horse (roan) serum+5 per cent formalin; 4 hours 20 minutes exposure; subcutaneously. Mild symptoms.

[Previous treatment: 46 days prior, 0.142 c. c. toxine No. 5+ $\frac{1}{360}$ c. c. antitoxic horse serum (S 1351).]

G. P. No. 7629. Six c. c. same mixture and exposure; subcutaneously. Slight symptoms.

[Previous treatment: 64 days prior, 0.142 c. c. toxine No. 5+ $\frac{1}{360}$ c. c. antitoxic horse serum (A. ppt. 31).]

G. P. No. 7689. Six c. c. same mixture; 4 hours exposure; subcutaneously. Slight symptoms.

[Previous treatment: 56 days prior, 0.142 c. c. toxine No. 5+ $\frac{1}{360}$ c. c. antitoxic horse serum (PDCo 080235).]

While the above three pigs showed slight and mild symptoms of hypersusceptibility, they all showed severe symptoms of formaldehyd poisoning.

These results plainly show that formaldehyd, in the strength and time stated, does not apparently appreciably influence the toxicity of horse serum. We have seen before that it also has no effect upon the sensitizing action, page 12.

CALCIUM CHLORID.

Netter^a has shown that when 1 gram of calcium chlorid is given on the day of injection and on the two following days the number of

^aNetter, Arnold: Efficacité de l'ingestion de chlorure de calcium comme moyen préventif des éruptions consécutives aux injections de sérum. *Compt. rend. soc. biol.*, tome 60, No. 6, Feb. 16, 1906, p. 279.

——: Influence des quantités de sérum injectées et du nombre des injections sur les éruptions sériques. Nécessité d'augmenter les quantités de sels de chaux dans les cas d'injections répétées ou supérieures à quarante centimètres cubes. *Idem*, p. 281.

children showing eruption following the injection of serum is greatly reduced. We thought perhaps this salt might have some influence upon the phenomenon produced in guinea pigs by two injections of horse serum. Three series of experiments were made with this object in view.

The effect of 0.1 gram of CaCl_2 by mouth for three consecutive days before the second injection of horse serum.

No. G. P.	First injection.	Interval.	Second injection.	Result.
		<i>Days.</i>		
6065	0.14 c.c. toxine $5 + \frac{1}{6.80}$ c. c. antitoxic horse serum (NYHD. 310), subcutaneously; then for 3 days be- fore second injection, 0.1 gm. CaCl_2 by mouth.	65	3 c. c. normal horse (roan) serum, in- traperitoneally.	Marked symptoms.
6063	.....do.....	65	.....do.....	Dead, 40 minutes.
6064	.....do.....	65	6 c. c. normal horse (roan) serum, in- traperitoneally.	Dead, 3 minutes.
6057	.....do.....	65	3 c. c. normal horse (roan) serum, in- traperitoneally.	Mild symptoms.
6062	0.14 c. c. toxine $5 + \frac{1}{7.20}$ c. c. antitoxic horse serum (NYHD. 310), subcutaneously; then for 3 days be- fore second injection, 0.1 gm. CaCl_2 by mouth.	65	.....do.....	Dead, 20 minutes.

Effect of 0.1 gram CaCl_2 daily for twenty days before the sensitizing inoculation was given, and every other day until the second injection of horse serum, fourteen days later.

No. G. P.	First injection.	Interval.	Second injection.	Result.
		<i>Days.</i>		
.....	0.1 gm. CaCl_2 by mouth daily for 20 days; then 0.14 c. c. toxine $5 + \frac{1}{2.50}$ c. c. antitoxic horse serum (S. 1500), subcutaneously; then CaCl_2 every other day till second injection.	14	3 c. c. normal horse (roan) serum, in- traperitoneally.	Dead, 30 minutes.
.....	.....do.....	14	.....do.....	Severe symptoms.
.....	.....do.....	14	.....do.....	Marked symptoms.
.....	.....do.....	14	.....do.....	Severe symptoms.
.....	.....do.....	14	.....do.....	Severe symptoms.

Effect of 0.1 gram CaCl₂ for fifteen consecutive days before the second injection of horse serum, 104 days after the sensitizing injection.

No. G. P.	First injection.	Interval.	Second injection.	Result.
		<i>Days.</i>		
5556	0.14 c. c. toxine $5 + \frac{1}{500}$ c. c. antitoxic horse serum (NYBH. 310), subcutaneously; then daily for 15 days be- fore second injection, 0.1 gm. CaCl ₂ by mouth.	104	6 c. c. normal horse (roan) serum, in- traperitoneally.	Dead, 35 minutes.
5550	0.14 c. c. toxine $5 + \frac{1}{500}$ c. c. antitoxic horse serum (NYBH. 310), subcutaneously; then daily for 15 days be- fore second injection, 0.1 gm. CaCl ₂ by mouth.	104	.....do	Dead, 25 minutes.
5557	0.14 c. c. toxine $5 + \frac{1}{500}$ c. c. antitoxic horse serum (NYBH. 310), subcutaneously; then daily for 15 days be- fore second injection, 0.1 gm. CaCl ₂ by mouth.	104	.....do	Dead, 15 minutes.
5553	0.14 c. c. toxine $5 + \frac{1}{500}$ c. c. antitoxic horse serum (NYBH. 310), subcutaneously; then daily for 15 days be- fore second injection, 0.1 gm. CaCl ₂ by mouth.	104	3 c. c. normal horse (roan) serum, in- traperitoneally.	Dead, 18 minutes.
5555	0.14 c. c. toxine $5 + \frac{1}{500}$ c. c. antitoxic horse serum (NYBH. 310), subcutaneously; then daily for 15 days be- fore second injection, 0.1 gm. CaCl ₂ by mouth.	104	.....do	Dead, 65 minutes.
5552	0.14 c. c. toxine $5 + \frac{1}{500}$ c. c. antitoxic horse serum (NYBH. 310), subcutaneously; then daily for 15 days be- fore second injection, 0.1 gm. CaCl ₂ by mouth.	104	.....do	Severe symptoms.
5551	0.14 c. c. toxine $5 + \frac{1}{500}$ c. c. antitoxic horse serum (NYBH. 310), subcutaneously; then daily for 15 days be- fore second injection, 0.1 gm. CaCl ₂ by mouth.	104	.....do	Very severe symp- toms.

Effect of 0.1 gram CaCl_2 for fifteen consecutive days before the second injection of horse serum, 104 days after the sensitizing injection—Continued.

No. G. P.	First injection.	Interval.	Second injection.	Result.
5554	0.14 c. c. toxine 5+ $\frac{1}{500}$ c. c. antitoxic horse serum (NYBH. 310), subcutaneously; then daily for 15 days be- fore second injection, 0.1 gm. CaCl_2 by mouth.	<i>Days.</i> 104	6 c. c. normal horse (roan) serum, in- traperitoneally.	Marked symptoms.

As will be seen from the above, the guinea pigs which received 0.1 gm. of CaCl_2 for three days previous to the second injection of serum reacted in the usual manner, 2 of them dying in a few minutes, and the other two had severe symptoms.

Of those which received 0.1 gm. CaCl_2 daily for twenty days before being given their sensitizing dose and then every other day for fourteen days before they were given the second dose of serum, none showed any marked resistance.

Of those that were sensitized first and then given 0.1 gm. CaCl_2 for the fourteen days previous to the second dose, 5 out of 8 died in spite of the fact that 4 received only 3 c. c. of serum.

It is, therefore, quite plain that, while CaCl_2 may modify the occurrence of rashes in children following a single injection of serum, it does not influence to any marked extent the toxic effect in guinea pigs of a second injection of serum given fourteen days after the first injection.

FREEZING DOES NOT DESTROY THE TOXIC PRINCIPLE.

Some normal horse serum (roan) was frozen hard at 15°F. , then thawed at room temperature, and found toxic when injected into a sensitized guinea pig. For example:

No. G. P.	First injection.	Interval.	Second injection.	Result.
5329	0.22 c. c. toxine no. 7+ $\frac{1}{100}$ c. c. antitoxic horse serum (Natl., XIV), subcutane- ously.	<i>Days.</i> 13	6 c. c. normal horse (roan) serum, frozen hard in brine, then thawed at room temperature, in- traperitoneally.	Severe symptoms.

Part III.

IS THE TOXIC PRINCIPLE SPECIFIC?

The toxic action is quantitatively specific so far as various blood serums are concerned. That is, a guinea pig sensitized with horse serum is more susceptible to a subsequent injection of horse serum than to a subsequent injection of the blood serum of cattle, sheep, cats, dogs, hogs, etc. The specific character of the hypersusceptibility is more apparent when proteid substances of quite different origin are used at the first and second injections. For example, guinea pigs sensitized with horse serum do not react at all to subsequent injections of peptone, vegetable proteid extracts, egg albumen or milk.

Horse serum versus other proteid substances.

No. G. P.	First injection.	Interval.	Second injection.	Result.
		<i>Days.</i>		
7030	0.142 c. c. toxine 5+ $\frac{1}{7500}$ c. c. antitoxic horse serum (Ld. 4B), subcutaneously.	52	6 c. c. 3 per cent pep- tone, intraperitone- ally.	No symptoms.
7039	0.142 c. c. toxine 5+ $\frac{1}{10000}$ c. c. antitoxic horse serum (Ld. 5H), subcutaneously.	52	.....do	No symptoms.
7038	0.142 c. c. toxine 5+ $\frac{1}{8000}$ c. c. antitoxic horse serum (Ld. 5H), subcutaneously.	52	6 c. c. watery ex- tract of peas kept at 15° C. 24 hours, filtered through porcelain intraperi- toneally.	No symptoms.
7033	0.142 c. c. toxine 5+ $\frac{1}{7400}$ c. c. antitoxic horse serum (Ld. 34), subcutaneously.	52	.....do	No symptoms.
7036	0.142 c. c. toxine 5+ $\frac{1}{10000}$ c. c. antitoxic horse serum (Ld. 5H), subcutaneously.	52	6 c. c. egg albumen, saturated solution in salt water (not filtered), intraperi- toneally.	No symptoms.
7041	0.142 c. c. toxine 5+ $\frac{1}{7000}$ c. c. antitoxic horse serum (Ld. 5C), subcutaneously.	52	.....do	No symptoms.
7032	0.142 c. c. toxine 5+ $\frac{1}{5000}$ c. c. antitoxic horse serum (Ld. 34), subcutaneously.	52	6 c. c. bottom milk unfiltered, intrape- ritoneally.	No symptoms.
7035	0.142 c. c. toxine 5+ $\frac{1}{8000}$ c. c. antitoxic horse serum (Ld. 5H), subcutaneously.	52	.....do	No symptoms.

It naturally occurred to us to determine whether guinea pigs sensitized with injections of albuminous substances, such as are contained in milk, the white of eggs, peas, etc., are sensitive to subsequent injections of horse serum.

The following experiments plainly indicate that animals sensitized with milk, egg albumen, peptone, or the albuminous substance extracted from peas, do not react when subsequently injected with horse serum.

Other proteid substances versus horse serum.

No. G. P.	First injection.	Interval.	Second injection.	Result.
		<i>Days.</i>		
705	0.1 c. c. fresh whole milk, subcutaneously.	31	6 c. c. normal horse (No. 15) serum, intraperitoneally.	No symptoms.
736	.....do.....	31	.....do.....	No symptoms.
738	.....do.....	31	.....do.....	No symptoms.
703	$\frac{1}{250}$ gm. peptone, subcutaneously.	31	.....do.....	No symptoms.
730	1 c. c. egg albumen in salt solution, subcutaneously.	21	.....do.....	No symptoms.
731	.....do.....	21	.....do.....	No symptoms.
742	1 c. c. watery extract peas, subcutaneously.	21	10 c. c. normal horse (No. 15) serum, intraperitoneally.	No symptoms.
743	0.5 c. c. watery extract peas, subcutaneously.	21	.....do.....	No symptoms.
744	0.1 c. c. watery extract peas, subcutaneously.	21	.....do.....	No symptoms.
484	1 c. c. normal horse (roan) serum, subcutaneously.	64	6 c. c. hemoglobin, horse (roan), intraperitoneally.	Mild symptoms.
485	6 c. c. normal horse (roan) serum, subcutaneously.	64	.....do.....	Mild symptoms.
486	.....do.....	64	.....do.....	Slight symptoms.
487	$\frac{1}{250}$ c. c. normal horse (roan) serum, subcutaneously.	64	.....do.....	Slight symptoms.

Part IV.

OTHER BLOOD SERUMS AND OTHER ALBUMINOUS SUBSTANCES ARE ALSO TOXIC.

So much of our work has been done with horse serum that we desire to record some further experiments with the blood serums of other animals. We confirm and extend our previous work that the same reactions may be induced in the guinea pig with the blood serums of various animals, such as the dog, ox, sheep, cat, and hog.

Other blood serums.

No. G. P.	First injection.	Interval.	Second injection.	Result.
	Subcutaneously, $\frac{1}{2}$ to c. c. serum of—		Intraperitone- ally, 6 c. c. se- rum of—	
		<i>Days.</i>		
461	Ox	37	Ox	Dead, 120 minutes.
462	do	37	do	Marked symptoms.
463	do	37	do	Severe symptoms.
465	do	37	do	Severe symptoms.
466	Sheep	37	Sheep	Slight symptoms.
467	do	37	do	Dead, 110 minutes.
468	do	37	do	Severe symptoms.
469	do	37	do	Severe symptoms.
470	do	37	do	Dead, 12 hours.
471	Hog	37	Hog	Mild symptoms.
472	do	37	do	Dead, 12 hours.
473	do	37	do	Dead, 1 hour.
474	do	37	do	Severe symptoms.
475	do	37	do	Severe symptoms.
476	Dog	70	Dog	Dead, 60 minutes.
477	do	70	do	Dead, 120 minutes.
478	do	70	do	Dead, 20 minutes.
479	do	70	do	Dead, 65 minutes.
480	do	70	do	Dead, 70 minutes.
481	Cat	70	Cat	Dead, 120 minutes.
482	do	70	do	Dead, 50 minutes.
483	do	70	do	Dead, 120 minutes.
484	do	70	do	Dead, 50 minutes.
485	do	70	do	Dead, 65 minutes.

OTHER ALBUMINOUS SUBSTANCES.

As soon as we concluded that it is probably the proteid substance in horse serum that is chiefly concerned in sensitizing and poisoning the guinea pigs, we thought of other proteid substances obtained from widely different sources.

We have found that hemoglobin, egg albumen, milk, and extract of peas are quite as active as horse serum. Peptone seems to have slight sensitizing and poisonous properties; leucin and tyrosin none at all. The reaction following the second injection of proteid matter in the guinea pigs appears, then, to be common to all the higher forms of albuminous substances, no matter from what source. It occurs to us that this phenomenon of hypersusceptibility in the guinea pig may be used as a physiological test to distinguish true proteid substances from the lower forms of nitrogenous compounds. It would

be interesting to determine whether the synthetic peptids and polypeptids of Fisher sufficiently approach the true proteid molecular structure to induce hypersusceptibility in the guinea pig.

From our work with other proteid substances it was but a logical step to the albuminous content of the bacterial cell, which is dealt with in another part of this work.

Hemoglobin versus hemoglobin.

No. G. P.	First injection.	Interval.	Second injection.	Result.
		<i>Days.</i>		
411	0.1 c. c. hemoglobin (washed 20 times) subcutaneously.	22	6 c. c. hemoglobin, intraperitoneally.	Marked symptoms.
412	0.5 c. c. hemoglobin (washed 20 times) subcutaneously.	22	.....do	Severe symptoms.
413	1 c. c. hemoglobin (washed 20 times) subcutaneously.	22	.....do	Dead, 5 minutes.
414	3 c. c. hemoglobin (washed 20 times) subcutaneously.	22	.....do	Slight symptoms.
415	5 c. c. hemoglobin (washed 20 times) subcutaneously.	22	.....do	Very severe symptoms.

The hemoglobin was obtained by dissolving the washed red corpuscles of a normal horse in distilled water. The red corpuscles for the hemoglobin solution used at the first injection, in order to sensitize the guinea pigs, was washed and centrifuged 20 times in order to surely wash away all traces of serum, the smallest remaining quantities of which might have confused the results. The hemoglobin used at the second injection was dissolved from red corpuscles washed four times.

Egg albumen versus egg albumen.

No. G. P.	First injection.	Interval.	Second injection.	Result.
		<i>Days.</i>		
406	0.1 c. c. egg albumen, subcutaneously.	22	6 c. c. saturated solution of egg albumen in salt solution, intra- peritoneally.	Dead, 30 minutes.
407	0.5 c. c. egg albumen, subcutaneously.	22	.....do	Dead, 18 minutes.
408	1 c. c. egg albumen, sub- cutaneously.	22	.....do	Dead, 25 minutes.
409	3 c. c. egg albumen, sub- cutaneously.	22	.....do	Dead, 25 minutes.
410	5 c. c. egg albumen, sub- cutaneously.	22	.....do	Dead, 20 minutes.
732	1 c. c. egg albumen + salt solution, subcu- taneously.	21	6 c. c. egg albumen + salt solution equal quantities, intraperitoneally.	Severe symptoms.

Milk versus milk.

No. G. P.	First injection.	Interval.	Second injection.	Result.
		<i>Days.</i>		
401	3 c. c. milk filtered through porcelain, subcutaneously.	26	10 c. c. bottom milk, intraperitoneally.	Slight symptoms.
402	1 c. c. milk filtered through porcelain, subcutaneously.	26	.....do	Slight symptoms.
403	0.5 c. c. milk filtered through porcelain, subcutaneously.	26	.....do	Slight symptoms.
404	0.1 c. c. milk filtered through porcelain, subcutaneously.	26	.....do	Slight symptoms.
706	0.5 c. c. fresh whole milk, subcutaneously.	31	10 c. c. fresh whole milk, intraperitoneally.	Dead, 20 minutes.
707	1 c. c. fresh whole milk, subcutaneously.	31	.....do	Very severe symptoms.
708	3 c. c. fresh whole milk, subcutaneously.	31	.....do	Very severe symptoms.
709	5 c. c. fresh whole milk, subcutaneously.	31	.....do	Very severe symptoms.
737	0.1 c. c. fresh whole milk, subcutaneously.	31	.....do	Very severe symptoms.
Control: 6 c. c. fresh whole milk, intraperitoneally.....				No symptoms.

Peas versus peas.

No. G. P.	First injection.	Interval.	Second injection.	Result.
		<i>Days.</i>		
416	0.1 c. c. watery extract peas, 24 hours at 15° C. (acid), filtered through porcelain, subcutaneously.	26	10 c. c. watery extract of peas, 3 days at 15° C., filtered through porcelain intraperitoneally.	Marked symptoms.
417	0.5 c. c. watery extract peas, 24 hours at 15° C. (acid), filtered through porcelain, subcutaneously.	26	.....do	Dead, 7 hours and 30 minutes.
418	1 c. c. watery extract peas, 24 hours at 15° C. (acid), filtered through porcelain, subcutaneously.	26	.....do	Marked symptoms.
419	3 c. c. watery extract peas, 24 hours at 15° C. (acid), filtered through porcelain, subcutaneously.	26	.....do	Dead, 4 hours.
420	5 c. c. watery extract peas, 24 hours at 15° C. (acid), filtered through porcelain, subcutaneously.	26	.....do	Dead, 2 hours.
Control: 10 c. c. watery extract of peas, 3 days at 15° C., filtered through porcelain, intraperitoneally.				No symptoms.
Do				No symptoms.

Peptone versus peptone.

No. G. P.	First injection.	Interval.	Second injection.	Result.
		<i>Days.</i>		
492	0.5 c. c. half-saturated solution peptone, subcutaneously.	21	6 c. c. saturated solution of peptone, intraperitoneally.	Slight symptoms.
490	1 c. c. half-saturated solution peptone, subcutaneously.	21	.....do	Mild symptoms.
491	3 c. c. half-saturated solution peptone, subcutaneously.	21	.....do	Marked symptoms.
488	0.1 c. c. half-saturated solution peptone, subcutaneously.	21	.....do	Marked symptoms.
748	0.1 c. c. heated, half-saturated solution peptone, subcutaneously.	21	6 c. c. half-saturated solution of peptone, intraperitoneally.	Marked symptoms.
749	0.5 c. c. heated, half-saturated solution peptone, subcutaneously.	21	.....do	No symptoms.
750	1 c. c. heated, half-saturated solution peptone, subcutaneously.	21	.....do	Marked symptoms.
751	3 c. c. heated, half-saturated solution, peptone, subcutaneously.	21	6 c. c. half-saturated solution of peptone, intraperitoneally.	Marked symptoms.
752	5 c. c. heated, half-saturated solution peptone, subcutaneously.	21	6 c. c. half-saturated solution of peptone, subcutaneously.	Marked symptoms.
Control: 6 c. c. half-saturated solution of peptone, heated, subcutaneously.				No symptoms.

Tyrosin versus tyrosin.

No. G. P.	First injection.	Interval.	Second injection.	Results.
		<i>Days.</i>		
739	0.002 gm. watery solution of tyrosin, subcutaneously.	21	6 c. c. tyrosin (0.1 gm. + 50 c. c.) watery solution, intraperitoneally.	No symptoms.
740	0.01 gm. watery solution of tyrosin, subcutaneously.	21	20 c. c. tyrosin (0.1 gm. + 50 c. c.) watery solution, intraperitoneally.	No symptoms.
741	0.02 gm. watery solution of tyrosin, subcutaneously.	21	10 c. c. tyrosin (0.1 gm. + 50 c. c.) watery solution, intraperitoneally.	No symptoms.
Control: 6 c. c. tyrosin (0.1 gm. + 50 c. c.) watery solution, intraperitoneally, into a fresh guinea pig.				No symptoms.

Leucin versus leucin.

No. G. P.	First injection.	Interval.	Second injection.	Results.
		<i>Days.</i>		
745	0.02 gm. leucin in watery solution, subcutaneously.	17	20 c. c. (0.2 gm. + 50 c. c.) watery solution intraperitoneally.	No symptoms.
746	0.02 gm. leucin in watery solution, subcutaneously.	17	6 c. c. (0.2 gm. + 50 c. c.) watery solution intraperitoneally.	No symptoms.
747	0.02 gm. leucin in watery solution, subcutaneously.	17	10 c. c. (0.2 gm. + 50 c. c.) watery solution intraperitoneally.	No symptoms.
Control: 6 c. c. leucin (0.2 gm. + 50 c. c.) watery solution, intraperitoneally, into a fresh guinea pig.				No symptoms.

Part V.

HYPERSENSUSCEPTIBILITY AND IMMUNITY PRODUCED BY BACTERIAL PROTEIDS.

Experimental studies with the bacterial proteids are of the greatest importance on account of the practical uses to which results along this line may lead. Our conviction that the phenomenon of hypersusceptibility which we have been studying in the guinea pig has a deep significance in general pathology, especially in the problem of immunity, induced us to undertake an extensive series of experiments with proteid extracts obtained from bacterial cell masses. Some of this work is sufficiently advanced for us to record our results in part.

Hypersusceptibility may easily be induced in guinea pigs with proteid extracts obtained from the bacterial cell. The first injection of most of the extracts used by us seems comparatively harmless to the animal. A second injection of the same extract shows, however, that profound physiological changes have taken place. A definite period must elapse between the first and the second injection. The symptoms presented by the guinea pigs as a result of the second injection resemble those caused by horse serum.

The phenomenon induced by a second injection is followed (in certain cases) by an immunity to the corresponding infection.

These results strengthen our belief that the phenomenon of hypersusceptibility has a practical significance in the prevention and cure of certain infectious processes. It gives a possible explanation to the period of incubation of some of the communicable diseases. Is it a coincidence that the period of incubation of a number of infectious diseases is about ten to fourteen days, which corresponds significantly with the time required to sensitize animals with a strange proteid? In certain infectious diseases with short periods of incubation, such as pneumonia, the crisis which commonly appears about the tenth day may find a somewhat similar explanation. It is evident that disease processes produced by soluble toxines, such as diphtheria and tetanus, do not belong to the category now under consideration.

EXTRACT OF COLON BACILLUS.

The extract from the colon bacillus in the following experiments was obtained as follows:

A 2-day-old culture of *B. coli communis* in Dunham's solution was used to heavily inoculate the surface of 84 large agar plates. These

plates were grown at 37° C. for four days and the surface growth collected.

The bacterial mass was frozen forty-eight hours at about 15° F., thawed at room temperature, and then ground with sand by hand in a mortar and pestle for five hours, shaken vigorously half an hour, and again frozen eighteen hours. After again thawing, the fluid was diluted with salt solution and filtered through a Berkefeld filter. The clear filtrate gave a distinct coagulum with heat and acetic acid.

All the other extracts were obtained by a similar process. In the case of the tubercle bacillus the bacterial mass was first washed three days in running water to eliminate the soluble tuberculin as much as possible.

B. coli.

No. G. P.	First injection.	Interval.	Second injection.	Result.
		<i>Days.</i>		
817	5 c. c. colon extract, subcutaneously.	35	6 c. c. colon extract, intraperitoneally.	Marked symptoms.
819	1 c. c. colon extract, subcutaneously.	35	.....do.....	Mild symptoms.
818	.....do.....	35	6 c. c. colon extract, subcutaneously.	Marked symptoms
820	.....do.....	35	.....do.....	Slight symptoms.
821	.....do.....	35	6 c. c. colon extract, intraperitoneally.	Mild symptoms.
822	0.5 c. c. colon extract, subcutaneously.	35	6 c. c. colon extract, subcutaneously.	Mild symptoms.
823	0.1 c. c. colon extract, subcutaneously.	35	6 c. c. colon extract, intraperitoneally.	Slight symptoms.
824	0.01 c. c. colon extract, subcutaneously.	35	6 c. c. colon extract, subcutaneously.	Marked symptoms.
825	0.005 c. c. colon extract, subcutaneously.	35	6 c. c. colon extract, intraperitoneally.	Severe symptoms.

The hypersusceptibility induced by the colon extracts manifested itself by symptoms resembling those already described in the case of horse serum. The guinea pigs scratched at the mouth with their hind legs. Most of them showed evidences of respiratory embarrassment by quickened, labored, or irregular breathing. Many of the pigs lay over on their sides, which is a very common symptom. A few developed jerky movements, but in no case was convulsion noted. The pigs looked quite sick and ill at ease, but gradually recovered, so that by next morning they seemed normal.

Ten days following the second injection of the extract all the above pigs were given 5 c. c. of a heavy emulsion of colon bacillus from 24-hour old agar slants, but showed no symptoms, and remain in good condition. Three controls received the same injection and died in twelve hours.

YEAST.

The manifestations of hypersusceptibility produced by the proteid extract from yeast cells are restlessness, scratching, irregular respirations; the guinea pigs lie down and look sick; sometimes jerky movements are seen and, in one instance, convulsions.

No. G. P.	First injection.	Interval.	Second injection.	Result.
		<i>Days.</i>		
755	1 c. c. extract yeast cells, subcutaneously.	22	6 c. c. extract yeast cells, intraperitoneally.	Very severe symptoms.
754	0.5 c. c. extract yeast cells, subcutaneously.	22	6 c. c. extract yeast cells, subcutaneously.	Slight symptoms.
864	0.1 c. c. extract yeast cells, subcutaneously.	19	5 c. c. extract yeast cells, subcutaneously.	Slight symptoms.
803	1 c. c. extract yeast cells, subcutaneously.	27	6 c. c. extract yeast cells, intraperitoneally.	Mild symptoms.
807	.....do.....	27	.....do.....	Mild symptoms.
804	.....do.....	27	.....do.....	Marked symptoms.
809	.....do.....	27	.....do.....	Dead, 2 hours 10 minutes.
802	.....do.....	27	6 c. c. extract yeast cells, subcutaneously.	Slight symptoms.
805	.....do.....	27	.....do.....	Slight symptoms.
810	.....do.....	27	.....do.....	Marked symptoms.
806	.....do.....	27	.....do.....	Very severe symptoms.
815	0.005 c. c. extract yeast cells, subcutaneously.	27	5 c. c. extract yeast cells, subcutaneously.	No symptoms.
814	0.01 c. c. extract yeast cells, subcutaneously.	27	.....do.....	Slight symptoms.
813	0.02 c. c. extract yeast cells, subcutaneously.	27	.....do.....	Mild symptoms.
812	0.1 c. c. extract yeast cells, subcutaneously.	27	.....do.....	Severe symptoms.
811	0.5 c. c. extract yeast cells, subcutaneously.	27	.....do.....	Very severe symptoms.
801	5 c. c. extract yeast cells, subcutaneously.	27	.....do.....	Mild symptoms.
800	10 c. c. extract yeast cells, subcutaneously.	27	.....do.....	Very severe symptoms.

HAY BACILLUS.

No. G. P.	First injection.	Interval.	Second injection.	Result.
		<i>Days.</i>		
869	1 c. c. extract subtilis, subcutaneously.	14	7 c. c. extract subtilis, intraperitoneally.	Slight symptoms.
864	10 c. c. extract subtilis, subcutaneously.	25	6 c. c. extract subtilis, intraperitoneally.	Marked symptoms.

HAY BACILLUS—Continued.

No. G. P.	First injection.	Interval.	Second injection.	Result.
		<i>Days.</i>		
865	8 c. c. extract subtilis, subcutaneously.	25	6 c. c. extract subtilis, intraperitoneally.	No symptoms.
866	6 c. c. extract subtilis, subcutaneously.	25	.....do	Marked symptoms.
868	2 c. c. extract subtilis, subcutaneously.	25	.....do	Marked symptoms.
870	0.5 c. c. extract subtilis, subcutaneously.	25	.....do	Marked symptoms.
871	0.1 c. c. extract subtilis, subcutaneously.	25	.....do	Slight symptoms.
872	0.01 c. c. extract subtilis, subcutaneously.	25	.....do	Slight symptoms.
873	0.001 c. c. extract subtilis, subcutaneously.	25	.....do	Slight symptoms.

ANTHRAX.

Indications of hypersusceptibility produced by anthrax are scratching, rapid respirations; pigs frequently fall over on their sides and look sick. None of the pigs coughed or had convulsions.

No. G. P.	First injection.	Interval.	Second injection.	Result.
		<i>Days.</i>		
842	10 c. c. extract of anthrax, subcutaneously.	21	6 c. c. extract anthrax, subcutaneously.	Marked symptoms.
843	5 c. c. extract of anthrax, subcutaneously.	21	.....do	Mild symptoms.
844	1 c. c. extract of anthrax, subcutaneously.	21	.....do	Mild symptoms.
845	.....do	21	.....do	Slight symptoms.
846	.....do	21	.....do	Severe symptoms.
847	.....do	21	.....do	Mild symptoms.
848	0.5 c. c. extract of anthrax, subcutaneously.	21	.....do	Mild symptoms.
849	0.1 c. c. extract of anthrax, subcutaneously.	21	.....do	Slight symptoms.
850	0.01 c. c. extract of anthrax, subcutaneously.	21	.....do	Slight symptoms.
851	0.005 c. c. extract of anthrax, subcutaneously.	21	.....do	Slight symptoms.
852	1 c. c. extract of anthrax, subcutaneously, daily 7 days.	11	.....do	No symptoms.
853	.....do	11	.....do	No symptoms.
854	.....do	11	4 c. c. extract anthrax, subcutaneously.	Mild symptoms.
855	.....do	11	6 c. c. extract anthrax, subcutaneously.	Slight symptoms.
856	.....do	11	.....do	No symptoms.

All the above guinea pigs were subsequently inoculated with a virulent culture of anthrax. They all died in a few days with the usual lesions.

A number of guinea pigs were given the extract from anthrax bacilli before infection; some were given a single injection, some two injections, and others daily injections for twenty days. Other guinea pigs were given the extract used as a vaccine, both in single and repeated injections, after being infected with anthrax bacilli. The extract did not seem to have any influence on the course of the disease, whether given before or after the infection.

TUBERCULOSIS.

The indications of hypersusceptibility induced by extract of tubercle bacilli are restlessness, scratching, irregular respiration, tremor; most of the pigs lie down on their sides and look sick.

No. G. P.	First injection.	Interval.	Second injection.	Result.
		<i>Days.</i>		
827	0.1 c. c. extract human tubercle bacilli, subcutaneously.	32	6 c. c. extract human tubercle bacilli, subcutaneously.	Mild symptoms.
828	1 c. c. extract human tubercle bacilli, subcutaneously.	32	.....do	No symptoms.
829	2 c. c. extract human tubercle bacilli, subcutaneously.	32	.....do	Mild symptoms.
830	3 c. c. extract human tubercle bacilli, subcutaneously.	32	.....do	Mild symptoms.
831	4 c. c. extract human tubercle bacilli, subcutaneously.	32	.....do	Mild symptoms.
832	5 c. c. extract human tubercle bacilli, subcutaneously.	32	6 c. c. extract human tubercle bacilli, intraperitoneally.	Severe symptoms.
833	6 c. c. extract human tubercle bacilli, subcutaneously.	32	.....do	Slight symptoms.
834	7 c. c. extract human tubercle bacilli, subcutaneously.	32	10 c. c. extract human tubercle bacilli, intraperitoneally.	Slight symptoms.
835	8 c. c. extract human tubercle bacilli, subcutaneously.	32	6 c. c. extract human tubercle bacilli, intraperitoneally.	Mild symptoms.
836	9 c. c. extract human tubercle bacilli, subcutaneously.	32	6 c. c. extract human tubercle bacilli, subcutaneously.	No symptoms.

The guinea pigs which have reacted to two injections of proteid extract obtained from the tubercle bacillus are now being tested for immunity to infection with tubercle cultures.

TYPHOID.

The indications of hypersusceptibility induced by two injections of typhoid extract manifest themselves by rapid respirations; most of the pigs lie down on their sides. The symptoms presented by this series of pigs were mild.

No. G. P.	First injection.	Interval.	Second injection.	Result.
		<i>Days.</i>		
857	10 c. c. typhoid extract, subcutaneously.	34	10 c. c. typhoid extract, subcutaneously.	Slight symptoms.
858	5 c. c. typhoid extract, subcutaneously.	34	.....do	Slight symptoms.
859	1 c. c. typhoid extract, subcutaneously.	34	.....do	Slight symptoms.
860	.....do	34	6 c. c. typhoid extract, intraperitoneally.	Slight symptoms.
862	0.5 c. c. typhoid extract, subcutaneously.	34	10 c. c. typhoid extract, subcutaneously.	Slight symptoms.
863	0.1 c. c. typhoid extract, subcutaneously.	34	.....do	Slight symptoms.

Nine days following the second injection of the extract, five pigs of the above series, which had received 10 c. c. of the typhoid extract at the second injection, resisted a large dose of a virulent typhoid culture. Two controls died in eighteen hours. One or two of the pigs which had received the extract were slightly sick the following day, but the next day had fully recovered and have remained so. A definite immunity was, therefore, conferred by the two injections of extract from the typhoid bacillus.

TYPHO-LYSIN.

Along somewhat the same lines efforts to obtain the phenomenon of hypersusceptibility with the dissolved typhoid bacilli (natural lysis) failed.

G. P. 480W and 550W:

September 11 to 20, fed dead typhoid culture daily.

September 26 to 28, fed live typhoid culture daily.

December 14 to 28, 1 c.c. bouillon culture of typhoid daily, subcutaneously.

January 15, 10 c.c. heavy old bouillon culture of typhoid, intraperitoneally.

Killed 1 hour later. Peritoneal contents collected. Then peritoneal cavity washed with salt solution.

G. P. 100T and 109T:

September 11 to 20, fed dead typhoid bacilli daily.

September 28 to November 9, fed live typhoid bacilli daily.

December 17 to 28, 1 c.c. bouillon culture of typhoid daily, subcutaneously.

February 19, 6 c.c. heavy old bouillon culture of typhoid, intraperitoneally.

Killed 1 hour later. Peritoneal contents collected. Then peritoneal cavity washed with salt solution.

Peritoneal contents and saline washings from the peritoneal cavities of the above pigs used as follows:

No. G. P.	First injection.	Interval.	Second injection.	Result.
		<i>Days.</i>		
114	0.5 c. c. peritoneal contents of G. P. 480 and 550 containing dissolved typhoid bacilli, subcutaneously.	35	6 c. c. saline washings from peritoneal cavities of 10 pigs (100T to 109T) containing dissolved typhoid bacilli intraperitoneally.	No symptoms.
115	0.75 c. c. peritoneal contents of G. P. 480 and 550 containing dissolved typhoid bacilli, subcutaneously.	35	.....do	No symptoms.
116	.....do	35	.....do	No symptoms.
117	2 c. c. peritoneal contents of G. P. 480 and 550 containing dissolved typhoid bacilli, subcutaneously.	35	.....do	No symptoms.
118	0.5 c. c. saline washings from peritoneal cavities of G. P. 480 and 550, containing dissolved typhoid bacilli, subcutaneously.	35	.....do	No symptoms.
119	1 c. c. saline washings from peritoneal cavities of G. P. 480 and 550, containing dissolved typhoid bacilli, subcutaneously.	35	.....do	No symptoms.
120	1.5 c. c. saline washings from peritoneal cavities of G. P. 480 and 550, containing dissolved typhoid bacilli, subcutaneously.	35	.....do	No symptoms.
121	6 c. c. saline washings from peritoneal cavities of G. P. 480 and 550, containing dissolved typhoid bacilli, subcutaneously.	35	.....do	No symptoms.
111T	0.5 c. c. bouillon culture of typhoid bacilli, subcutaneously.	35	.....do	No symptoms.
112T	1 c. c. bouillon culture of typhoid bacilli, subcutaneously.	35	.....do	No symptoms.
113T	.....do	35	.....do	No symptoms.

Part VI.

COMPARATIVE TOXICITY OF UNTREATED AND REFINED ANTITOXIC SERUM.

It has long been known that diphtheria antitoxin is precipitated from the serum with the globulins, and many attempts have been made to separate the antitoxin from the nonantitoxic substances contained in the serum.

Gibson^a has evolved a practical method of concentrating and refining diphtheria antitoxic serum. Part of the process consists in placing the one-half saturation of ammonium sulphate precipitate derived from the antitoxic serum in saturated sodium chlorid solution. This dissolves a portion of the globulins with all the antitoxin. In this way the nucleoproteids and insoluble globulins present in the first precipitate are eliminated. The soluble globulins are precipitated by acetic acid, filtered, partially dried, and finally placed in a sack of parchment membrane and dialyzed in running water. This antitoxic solution of soluble globulins is then rendered neutral and sufficient sodium chlorid added to make it isotonic.

Park and Throne^b find, from a comparative study of 100 cases, that the removal of a considerable portion of the non-antitoxic globulins from the serum by the Gibson method eliminates much of the deleterious matter from the serum, so that severe rashes, joint complications, fever, and other constitutional disturbances are less likely to occur from the antitoxic globulins than from the antitoxic serum from which they were obtained.

We asked ourselves the question whether the precipitated and refined serum is less toxic to sensitized guinea pigs than the untreated serum from which it was made. Doctor Park kindly furnished us some of the precipitated serum and the corresponding untreated serum from which it was made in order to carry out these tests.

^a Gibson, R. B. *Journ. biolog. chemistry*, Vol. 1, Nos. 2 and 3, 1906.

^b Park, William H., and Throne, Binford: The results of the use of "refined diphtheria antitoxin," Gibson's "globulin preparation," in the treatment of diphtheria. *Trans. Assn. Am. Physicians*, Vol. 21, 1906, pp. 259-267.

Comparative toxicity of untreated and refined antitoxic serum.

No. G. P.	First injection.	Interval.	Second injection.	Result.
		<i>Days.</i>		
7491	0.24 c. c. toxine $9 + \frac{1}{130}$ c. c. antitoxic horse serum (PD. 08004), subcutaneously.	25	1 c. c. antitoxic horse serum, Gib- son precipitated (NYBH. 305-6), intraperitoneally.	Dead, 25 minutes.
7480	0.24 c. c. toxine $9 + \frac{1}{320}$ c. c. antitoxic horse serum (S. 68D), sub- cutaneously.	25	.....do	Dead, 30 minutes.
7493	0.24 c. c. toxine $9 + \frac{1}{300}$ c. c. antitoxic horse serum (PD. 08516), subcutaneously.	25	.....do	Dead, 40 minutes.
7489	0.24 c. c. toxine $9 + \frac{1}{120}$ c. c. antitoxic horse serum (PD. 08004), subcutaneously.	25	.....do	Dead, 42 minutes.
7478	0.24 c. c. toxine $9 + \frac{1}{180}$ c. c. antitoxic horse serum (S. 69H), sub- cutaneously.	25	1 c. c. antitoxic horse serum (NYBH. 305-6), untreated.	Dead, 12 minutes.
7490	0.24 c. c. toxine $9 + \frac{1}{130}$ c. c. antitoxic horse serum (PD. 08004), subcutaneously.	25	.....do	Very severe symp- toms.
7477	0.24 c. c. toxine $9 + \frac{1}{130}$ c. c. antitoxic horse serum (S. 69H), sub- cutaneously.	25	.....do	Very severe symp- toms.
7505	0.24 c. c. toxine $9 + \frac{1}{170}$ c. c. antitoxic horse serum (Hb. 27), sub- cutaneously.	25	2 c. c. antitoxic horse serum, Gib- son precipitated (NYBH. 305-6), subcutaneously.	Marked symptoms.
7503	0.24 c. c. toxine $9 + \frac{1}{300}$ c. c. antitoxic horse serum (Hb. 27), sub- cutaneously.	25	.....do	Severe symptoms.
7502	0.24 c. c. toxine $9 + \frac{1}{330}$ c. c. antitoxic horse serum (Hb. 26), sub- cutaneously.	25	.....do	Marked symptoms.
7504	0.24 c. c. toxine $9 + \frac{1}{170}$ c. c. antitoxic horse serum (Hb. 26), sub- cutaneously.	25	2 c. c. antitoxic horse serum (NYBH. 305-6), untreated.	Marked symptoms.
7506	0.24 c. c. toxine $9 + \frac{1}{220}$ c. c. antitoxic horse serum (Hb. 27), sub- cutaneously.	25	.....do	Severe symptoms.
7507	0.24 c. c. toxine $9 + \frac{1}{170}$ c. c. antitoxic horse serum (Hb. 27), sub- cutaneously.	25	.....do	Severe symptoms.

Comparative toxicity of untreated and refined antitoxic serum.

No. G. P.	First injection.	Interval.	Second injection.	Result.
		<i>Days.</i>		
7195	0.142 c. c. toxine $5 + \frac{1}{940}$ c. c. antitoxic horse serum (NYBH. 305), subcutaneously.	41	1 c. c. antitoxic horse serum, Gib- son precipitated (NYBH. 305-6), subcutaneously.	Severe symptoms.
7190	0.142 c. c. toxine $5 + \frac{1}{1000}$ c. c. antitoxic horse serum (NYBH. 305), subcutaneously.	41	.....do	Severe symptoms.
7194	0.142 c. c. toxine $5 + \frac{1}{840}$ c. c. antitoxic horse serum (NYBH. 305), subcutaneously.	41	.....do	Very severe symp- toms.
7189	0.142 c. c. toxine $5 + \frac{1}{1000}$ c. c. antitoxic horse serum (NYBH. 305), subcutaneously.	41	1 c. c. antitoxic horse serum (NYBH. 305-6), untreated.	Very severe symp- toms.
7193	0.142 c. c. toxine $5 + \frac{1}{960}$ c. c. antitoxic horse serum (NYBH. 305), subcutaneously.	41	.....do	Very severe symp- toms.
7196	0.142 c. c. toxine $5 + \frac{1}{940}$ c. c. antitoxic horse serum (NYBH. 305), subcutaneously.	41	.....do	Very severe symp- toms.

We think it evident from the above that refined antitoxic serum precipitated and dialyzed in accordance with the Gibson method is quite as toxic, bulk for bulk, as the untreated serum from which it has been obtained. We must, however, consider that the treatment to which the serum is subjected in accordance with the Gibson method concentrates its antitoxic power about twice. There is, therefore, a distinct advantage gained, so far as bulk is concerned, in giving a corresponding number of antitoxic units; for, the serum reaction in children depends partly upon the quantity of serum given.

Part VII.

COMPARATIVE TOXICITY OF DIFFERENT HORSE SERUMS.

Besredka and Steinhardt^a believe that the French horse serums are much less toxic than those used by Otto^b and the serums used by us. Besredka and Steinhardt had a mortality of about 25 per cent when 5 c. c. of serum was injected intraperitoneally at the second injection, whereas Otto's and our percentage under similar conditions was much higher. Besredka kindly sent us a quantity of "serum antidiphtherique" prepared at the Pasteur Institute and this serum was injected into a series of guinea pigs in order to compare its toxicity with the normal horse serum of our roan horse that we have used so much in these experiments.

Toxicity of "serum antidiphtherique" (Pasteur Institute).

No. G. P.	First injection.	Interval.	Second injection.	Result.
		<i>Days.</i>		
7768	0.142 c. c. toxine $5 + \frac{1}{320}$ c. c. antitoxic horse serum (S. spl. 1351), subcutaneously.	76	5 c. c. antitoxic horse serum (Pas- teur Institute), intraperitoneally.	Dead, 11 minutes.
7774	0.142 c. c. toxine $5 + \frac{1}{320}$ c. c. antitoxic horse serum (S. spl. 1351), subcutaneously.	76	.....do	Dead, 10 minutes.
7723	0.142 c. c. toxine $5 + \frac{1}{320}$ c. c. antitoxic horse serum (PD. 08022), subcutaneously.	83	.....do	Dead, 15 minutes.
7726	0.142 c. c. toxine $5 + \frac{1}{320}$ c. c. antitoxic horse serum (PD. 08022), subcutaneously.	83	.....do	Dead, 9 minutes.
7849	0.142 c. c. toxine $5 + \frac{1}{320}$ c. c. antitoxic horse serum (A. 192), sub- cutaneously.	58	.....do	Dead, 19 minutes.
440	0.0006 gm. tetanus tox- ine $A + \frac{1}{800}$ c. c. anti- toxic horse serum (Hoechst), subcu- taneously.	56	.....do	Dead, 10 minutes.
451	0.0006 gm. tetanus tox- ine $A + \frac{1}{800}$ c. c. anti- toxic horse serum (Parke), subcutane- ously.	56	.....do	Dead, 10 minutes.

^a Besredka, A., and Steinhardt, Edna: De l'anaphylaxie et de l'anti-anaphylaxie vis-à-vis du sérum de cheval. Ann. de l'Inst. Pasteur, Vol. 21, No. 2, Feb. 25, 1907, pp. 117-127.

^b Otto, R.: Das Theobald Smithschen Phänomen der Serum-Ueberempfindlichkeit. Leuthold-Gedenkschr., Bd. 1, 1905.

Toxicity of normal horse serum (our roan).

No. G. P.	First injection.	Interval.	Second injection.	Result.
		<i>Days.</i>		
7845	0.24 c. c. toxine 9 + $\frac{1}{310}$ c. c. antitoxic horse serum (A. 192), sub- cutaneously.	58	5 c. c. normal horse (roan) serum in- traperitoneally.	Dead, 20 minutes.
7850	0.24 c. c. toxine 9 + $\frac{1}{210}$ c. c. antitoxic horse serum (A. 142), sub- cutaneously.	58	.....do	Dead, 18 minutes.
7725	0.24 c. c. toxine 9 + $\frac{1}{360}$ c. c. antitoxic horse serum (PD. 08022), subcutaneously.	80	.....do	Dead, 35 minutes.
444	0.0006 gm. tetanus tox- ine A + $\frac{1}{1200}$ c. c. anti- toxic horse serum (Hoechst), subcu- taneously.	56	.....do	Very severe symp- toms.
447	0.0006 gm. tetanus tox- ine A + $\frac{1}{360}$ c. c. anti- toxic horse serum (M. 2122), subcutane- ously.	56	.....do	Very severe symp- toms.

It is perfectly evident from the above that our results upon the comparative toxicity of the French and American serums do not agree with those reported by Besredka and Steinhardt. With us, the French serums are perhaps somewhat more toxic than our own. We believe these contradictory results are due to other causes than the relative toxicity of the different serums. It is not likely that these differences are due to varying susceptibility of the different breeds of guinea pigs. We have found little difference between guinea pigs obtained from five or six different sources. Further, we have sometimes been struck with the fact that guinea pigs from our own stock and raised under precisely similar conditions show striking differences of degree in the reaction to the second injection. For instance, all the guinea pigs sensitized with toxine-antitoxin mixtures upon a certain date will subsequently prove exceedingly sensitive, and most of them will die at the second injection, whereas another lot of guinea pigs similarly sensitized at another time will prove much less susceptible at the second injection. So far as we are able to judge, this difference of toxicity depends upon something connected with the sensitizing action and not with the variety of horse serum given at the second injection.

NOTE.—When *toxine* is mentioned in the tables diphtheria toxine is meant unless otherwise stated.

Part VIII.

THE IMMUNITY TO HYPERSUSCEPTIBILITY OR "ANTI-ANAPHYLAXIS."

The immunity produced against the toxic action by repeated injections of horse serum has been called anti-anaphylaxis by Besredka and Steinhardt.^a From our subsequent work we learn that this immunity is relatively not quite as lasting and definite as many instances of active immunity seen in the laboratory against bacterial infections. Guinea pigs that have received a number of prior injections of horse serum may again show symptoms when reinjected with large amounts. The symptoms in such cases are usually mild, and death has never occurred in an "immunized" guinea pig as a result of subsequent injections with horse serum.

G. P. No. 410:

January 15, 1906, 1 c. c. antitoxic horse serum (Natl. VIII, 17), subcutaneously. No symptoms.

January 23, 1906, 1 c. c. antitoxic horse serum (Natl. VIII, 17), subcutaneously. No symptoms.

February 8, 1906, 6 c. c. antitoxic horse serum (Natl. VIII, 17), subcutaneously. No symptoms.

February 14, 1906, 6 c. c. antitoxic horse serum (Natl. VIII, 17), subcutaneously. No symptoms.

February 23, 1906, 6 c. c. antitoxic horse serum (Natl. VIII, 17), subcutaneously. No symptoms.

March 29, 1906, 6 c. c. antitoxic horse serum (Natl. VIII, 18), subcutaneously. No symptoms.

April 18, 1906, 6 c. c. antitoxic horse serum (Natl. VIII, 19), subcutaneously. No symptoms.

May 16, 1906, 6 c. c. normal horse (roan) serum, subcutaneously. No symptoms.

May 18 to June 27, 1906, normal horse (roan) serum, 1 c. c. daily, subcutaneously. No symptoms.

September 7, 1906, 6 c. c. normal horse (roan) serum, intraperitoneally. No symptoms.

G. P. No. 430:

May 18 to June 27, 1906, 1 c. c. normal horse (roan) serum, daily, subcutaneously. No symptoms.

February 27, 1907, 6 c. c. normal horse (roan) serum, intraperitoneally. Severe symptoms.

G. P. No. 427:

May 18 to June 27, 1906, 1 c. c. normal horse (roan) serum, daily, subcutaneously. No symptoms.

February 27, 1907, 6 c. c. normal horse (roan) serum, intraperitoneally. Severe symptoms.

^a Ann. de l'Inst. Pasteur, Vol. 21, No. 2, Feb. 25, 1907, pp. 117-127.

G. P. No. 4426:

January 10, 1906, 0.002 c. c. toxine No. 5, subcutaneously.

January 18, 1906, 6 c. c. normal horse (No. 15) serum, intraperitoneally. No symptom.

February 14, 1906, 6 c. c. antitoxic horse serum (Natl. VIII, 17), intraperitoneally. Symptoms (?).

February 23, 1906, 6 c. c. antitoxic horse serum (Natl. VIII, 17), intraperitoneally. No symptoms.

March 29, 1906, 6 c. c. antitoxic horse serum (Natl. VIII, 17), intraperitoneally. Mild symptoms.

April 18, 1906, 6 c. c. antitoxic horse serum (Natl. VIII, 18), intraperitoneally. No symptoms.

May 16, 1906, 6 c. c. normal horse (roan) serum, intraperitoneally. Severe symptoms.

May 18 to June 27, 1906, 1 c. c. normal horse (roan) serum, intraperitoneally, daily, except Sunday; 22 injections. No symptoms.

January 25, 1907, 6 c. c. normal horse (No. 15) serum, intraperitoneally. No symptoms.

March 26, 1907, 6 c. c. normal horse (roan) serum, intraperitoneally. No symptoms.

For other instances of this variation of susceptibility see Part IX, pages 59 to 62, Bulletin 29, Hygienic Laboratory, United States Public Health and Marine-Hospital Service.

Part IX.

MATERNAL TRANSMISSION OF HYPERSUSCEPTIBILITY AND IMMUNITY.

In our previous work we showed that hypersusceptibility to the toxic effects of horse serum may be transmitted from the mother guinea pig to her young. Later, one of us (Anderson) showed that the female guinea pig may transmit hypersusceptibility to horse serum and immunity to diphtheria toxine at the same time. On account of certain analogies between the reaction to tuberculin and the toxic action of horse serum, we have made further studies along these lines. In this bulletin we shall refer only to our studies upon the transmission of hypersusceptibility and immunity to the toxic action of horse serum, leaving related studies with tuberculosis and tuberculin for a future publication.

Our present studies corroborate the fact that hypersusceptibility to the toxic action of horse serum is always transmitted from the mother guinea pig to her young. This function is solely maternal; the male takes no part whatever in the transmission of these acquired properties. Whether this maternal transmission is hereditary or congenital can not be definitely stated.

We are able to exclude the milk as a factor in transmitting the hypersusceptibility to the toxic action of horse serum by a series of exchange experiments, which are given in detail below.

"Exchange" experiments consist in at once placing guinea pigs born of a susceptible mother to nurse with an untreated female and, in exchange, the young of the untreated female are at the same time placed to nurse with the susceptible female. From these "exchange" experiments we learn that the hypersusceptibility is not transmitted to the young in the milk.

We also learn from our experiments that hypersusceptibility may be transmitted from mother to young whether the mother is sensitized before or after conception. The fact that this influence may take place after conception might be taken to indicate that the transmission is congenital and not hereditary.

GROUP A.

FAMILY NO. 1.

(Sensitized female; untreated male.)

Female (G. P. No. 610). October 20, 1906. Six c. c. antitoxic horse serum. (Natl. IX, 17) intraperitoneally. Dead, 30 minutes.

[Previous treatment: 151 days prior, 0.15 c. c. toxine No. 9 + $\frac{1}{250}$ c. c. antitoxic horse serum (Natl. VIII, 18).]

Male (G. P. No. 102). June 8, 1906. Untreated. Put in cage with above female after female was sensitized.

Offspring. August 24, 1906. Four young born. Two tested as follows:

G. P. No. 610a. October 20. 59 days old. Three c. c. antitoxic horse serum (Natl. IX, 17) intraperitoneally. Dead, 4 minutes.

(G. P. No. 610b.) Ditto. Dead, 60 minutes.

FAMILY NO. 2.

(Sensitized female; untreated male.)

Female (G. P. No. 612). January 25, 1907. Six c. c. normal horse serum (horse No. 15) intraperitoneally. Very severe symptoms.

[Previous treatment: 245 days prior, 0.15 c. c. toxine $9 + \frac{1}{250}$ c. c. antitoxic horse serum (Natl. VIII, 18).]

Male (untreated). June 8, 1906. Placed in cage with above female after she was sensitized.

Offspring. One young born January 10, 1907, and tested as follows:

(G. P. No. 612a.) January 25. 15 days old. Two c. c. horse serum (horse No. 15) intraperitoneally. Marked symptoms.

FAMILY NO. 3.

(Sensitized female; untreated male.)

Female (G. P. No. 611). September 7, 1906. Six c. c. normal horse serum (roan) intraperitoneally. Dead, 120 minutes.

[Previous treatment: 106 days prior, received 0.15 c. c. toxine $9 + \frac{1}{250}$ c. c. antitoxic horse serum (Natl. VIII, 18).]

Male (untreated). Paired 17 days after treatment of female.

Offspring. One young. Tested as follows:

(G. P. No. 611a.) September 7, 1906. 2 days old. One c. c. normal horse serum (roan) intraperitoneally. Dead, 20 minutes.

FAMILY NO. 4.

(Sensitized female; untreated male. Exchange.)

Female (G. P. No. 613). February 27, 1907. Six c. c. normal horse (roan) serum intraperitoneally. Very severe symptoms.

[Previous treatment: 282 days prior 0.15 c. c. toxine $9 + \frac{1}{250}$ c. c. antitoxic horse serum (Natl. VIII, 18).]

Male (G. P. No. 10x). June 8, 1906. Untreated. Put into cage 18 days after female was sensitized.

Offspring. January 22, 1907. Two young born and at once put to nurse with untreated female. Tested as follows:

(G. P. No. 613a.) February 27, 1907. 36 days old. Two c. c. normal (roan) horse serum intraperitoneally. Very severe symptoms.

(G. P. No. 613b.) Ditto. Dead, 45 minutes.

Two young, born of untreated female, put to nurse with above sensitized female (No. 613). Tested as follows:

(G. P. No. P-68a.) February 27, 1907. 36 days old. Two c. c. normal horse (roan) serum intraperitoneally. No symptoms.

(G. P. No. P-68b.) Ditto. No symptoms.

FAMILY NO. 5.

(Sensitized female; untreated male. Exchange.)

Female (G. P. No. 614). March 26, 1907. Six c. c. normal horse (roan) serum intraperitoneally. Dead, 38 minutes.

[Previous treatment; 309 days prior, 0.15 c. c. toxine No. 9 + $\frac{1}{250}$ c. c. antitoxic horse serum (Natl. VIII, 18).]

Male (G. P. No. 10). June 8, 1906. Untreated. Put in cage after female was sensitized.

Offspring. February 17, 1907. Two young born, at once put to nurse with untreated female, and tested as follows:

(G. P. No. 614a). March 26, 1907. 38 days old. Two c. c. normal horse (roan) serum intraperitoneally. Dead, 25 minutes.

(G. P. No. 614b). Ditto. Dead, 20 minutes.

Two young, born of untreated female and nursed with above sensitized female (614), tested as follows:

(G. P. No. P-20). March 26, 1907. 38 days old. Two c. c. normal horse (roan) serum intraperitoneally. No symptoms.

(G. P. No. P-20a). Ditto. No symptoms.

GROUP B.

FAMILY NO. 6.

(Sensitized female; sensitized male. Exchange.)

Female (G. P. No. 601). October 23, 1906. Six c. c. antitoxic horse serum (Natl. IX, 18) intraperitoneally. Dead, 15 minutes.

[Previous treatment: 153 days prior, 0.15 c. c. toxine No. 9 + $\frac{1}{250}$ c. c. antitoxic horse serum (Natl. VIII, 18).]

Male (G. P. No. 606x). Paired after both were sensitized. September 7, 1906. Six c. c. normal horse (roan) serum intraperitoneally. Dead, 17 minutes.

[Previous treatment: 106 days prior, 0.15 c. c. toxine No. 9 + $\frac{1}{250}$ c. c. antitoxic horse serum (Natl. VIII, 18).]

Offspring. Two young, born August 28, 1906. Immediately nursed with an untreated female.

(G. P. No. 601a.) October 23, 1906. 56 days old. Three c. c. antitoxic horse serum (Natl. IX, 18) intraperitoneally. Severe symptoms.

(G. P. No. 601b.) Ditto. Severe symptoms.

Three untreated young pigs placed to nurse with the above mother (No. 601).

(G. P. No. X.) October 23. 56 days old. Three c. c. antitoxic horse serum intraperitoneally. No symptoms.

(G. P. No. Y.) Ditto. No symptoms.

(G. P. No. Z.) Ditto. No symptoms.

(G. P. mother of X, Y, and Z.) October 23. Six c. c. same serum intraperitoneally. No symptoms.

FAMILY NO. 7.

(Sensitized female; sensitized male. Exchange.)

Female (G. P. No. 603). February 27, 1907. Six c. c. normal horse (roan) serum intraperitoneally. Dead, 45 minutes.

[Previous treatment: 282 days prior, 0.15 c. c. toxine No. 9 + $\frac{1}{250}$ c. c. antitoxic horse serum (Natl. VIII, 18).]

Male (G. P. No. 606y). June 8, 1906. Placed in cage with above female after both were sensitized.

Offspring. January 17, 1907. Two young born, nursed with untreated female, and tested as follows:

(G. P. No. 603a.) February 27, 1907. 41 days old. Two c. c. normal horse (roan) serum intraperitoneally. Marked symptoms.

(G. P. No. 603b.) Ditto. Very severe symptoms.

Three young, born of untreated female and nursed with above sensitized female (603), tested as follows:

(G. P. No. 66a.) February 27, 1907. 41 days old. Two c. c. normal horse (roan) serum intraperitoneally. No symptoms.

(G. P. No. 66b.) Ditto. No symptoms.

(G. P. No. 66c.) Ditto. No symptoms.

GROUP C.

FAMILY NO. 8.

(Immune female; immune male.)

Female (G. P. No. 428). January 25, 1907. Six c. c. normal horse serum (horse No. 15) intraperitoneally. Slight symptoms.

[Previous treatment: May 18 to June 27, 1906, 1 c. c. normal horse (roan) serum daily (except Sunday), subcutaneously, 22 injections.]

Male (G. P. No. 4530). June 8, 1906. Immune. Placed in cage with above female. For history of this male see Family No. 14.

Offspring. December 28, 1906. Two young born and nursed with own mother. Tested as follows:

(G. P. No. 428a.) January 25, 1907. 28 days old. Two c. c. normal horse serum (horse No. 15) intraperitoneally. Marked symptoms.

(G. P. No. 428b.) Ditto. Marked symptoms.

FAMILY NO. 9.

(Immune female; immune male. Exchange.)

Female (G. P. No. 4426). January 10, 1906. 0.002 c. c. toxine 7. Severe reaction, slough.

January 18, 1906. Six c. c. normal horse serum (horse No. 15) intraperitoneally. No symptoms.

February 14, 1906. Six c. c. antitoxic horse serum (Natl. VIII, 17) intraperitoneally. Symptoms.

February 23, 1906. Ditto. No symptoms.

March 29, 1906. Ditto. Mild symptoms.

April 18, 1906. Ditto (Natl. VIII, 18). No symptoms.

May 16, 1906. Six c. c. normal (roan) horse serum intraperitoneally. Severe symptoms.

May 18 to June 27, 1906. One c. c. normal horse (roan) serum subcutaneously daily (except Sunday), 22 injections. No symptoms.

January 25, 1907. Six c. c. normal (No. 15). No symptoms.

March 26, 1907. Six c. c. normal (roan). No symptoms.

Male (G. P. No. 4530). June 8, 1906. Immune. Placed in cage with above female.

Previous treatment:

January 12, 1906. 0.19 c. c. toxine 7 + 1 unit antitoxic horse serum (B27).

January 22, 1906. Six c. c. antitoxic horse serum (Natl. VIII, 17) intraperitoneally. Definite symptoms.

February 6, 1906. Ditto. Symptoms.

February 8, 1906. Ditto. No symptoms.

February 14, 1906. Ditto. No symptoms.

February 23, 1906. Ditto. No symptoms.

March 25, 1906. Ditto (Natl. VIII, 18). No symptoms.

April 18, 1906. Ditto. Ditto. No symptoms.

May 16, 1906. Six c. c. normal horse (roan) serum intraperitoneally. No symptoms.

May 18 to June 27, 1906. One c. c. same serum subcutaneously daily (except Sunday), 22 injections. No symptoms.

January 25, 1907. Six c. c. normal horse serum (horse No. 15). Very slight symptoms.

Offspring, first litter. One young born December 26, 1906. As soon as born, placed to nurse with untreated female (pen 120), whose young were placed to nurse with G. P. No. 4426.

(G. P. No. 4426a.) January 25, 1907. Two c. c. normal horse (No. 15) serum intraperitoneally, when 30 days old. No symptoms.

Young of untreated female P. 120.

(G. P. No. P. 120a.) January 25, 1907. 35 days old. Two c. c. normal horse (No. 15) serum intraperitoneally. No symptoms.

February 18, 1907. 24 days later. Six c. c. same serum. Very severe symptoms.

(G. P. No. P. 120b.) January 25, 1907. Same as G. P. No. P. 120a. No symptoms.

February 18, 1907. Ditto. Dead, 70 minutes.

Second litter. Three young born March 1, 1907, and not exchanged.

(G. P. No. 4426b.) March 26, 1907. 25 days old. Two c. c. normal horse (roan) serum intraperitoneally. No symptoms.

(G. P. No. 4426c.) Same treatment. No symptoms.

(G. P. No. 4426d.) Same treatment. No symptoms.

These three pigs were again tested April 18 with 4 c. c. of normal horse (roan) serum into the peritoneal cavity. All three showed slight symptoms, thus proving that immunity, or "antianaphylaxis," was not transmitted from the mother.

FAMILY NO. 10.

(Immune female; immune male. Exchange.)

Female (G. P. No. 429). January 25, 1907. Six c. c. normal horse (No. 15) serum intraperitoneally. Slight symptoms.

[Previous treatment: May 18 to June 27, 1906, 1 c. c. normal horse (roan) serum daily except Sunday, 22 injections.]

Male (G. P. No. 4530). June 8, 1906. Placed in cage with female.

For history of this male, see Family No. 14.

Offspring. Three young, born December 29, 1906, and nursed with untreated G. P. No. P. 50. Tested as follows:

(G. P. No. 429a.) January 25, 1907. 27 days old. Two c. c. normal horse serum (horse No. 15) intraperitoneally. Marked symptoms.

(G. P. No. 429b.) Ditto. Marked symptoms.

(G. P. No. 429c.) Ditto. Marked symptoms.

Two young of untreated G. P. No. P. 50 nursed with immune female No. 429, and tested as follows:

(G. P. No. P. 50a.) January 25, 1907. 27 days old. Two c. c. normal horse serum (horse No. 15) intraperitoneally. No symptoms.

(G. P. No. P. 50b.) Ditto. No symptoms.

GROUP D.

FAMILY NO. 11.

(Immune female; untreated male.)

Female (G. P. No. 410). January 15, 1906. One c. c. antitoxic horse serum (Natl. VIII, 17). No symptoms.

January 23, 1906. Ditto. No symptoms.

February 8, 1906. Six c. c. same serum. No symptoms.

February 14, 1906. Ditto. No symptoms.

February 23, 1906. Ditto. No symptoms.

March 29, 1906. Six c. c. antitoxic horse serum (Natl. VIII, 18). No symptoms.

April 18, 1906. Ditto. No symptoms.

May 16, 1906. Six c. c. normal horse (roan) serum. No symptoms.

May 18 to June 27, 1906, daily. One c. c. same serum. No symptoms.

September 7, 1906. Six c. c. normal horse (roan) serum intraperitoneally. No symptoms.

All injections subcutaneously.

Male (G. P. No. 410m). June 8, 1906. Untreated. Put in cage after female was immunized.

Offspring. July 20, 1906. Three young born, and tested as follows:

(G. P. No. 410a.) September 7, 1906. 18 days old. Two c. c. normal horse (roan) serum intraperitoneally. No symptoms.

(G. P. No. 410b.) Ditto. No symptoms.

(G. P. No. 410c.) Ditto. No symptoms.

FAMILY NO. 12.

(Immune female; untreated male.)

Female (G. P. No. 430). February 27, 1907. Six c. c. normal horse (roan) serum intraperitoneally. Severe symptoms.

[Previous treatment: 245 days prior (May 18 to June 27). One c. c. normal horse (roan) serum subcutaneously daily.]

Male (G. P. No. —). June 8, 1906. Untreated. Put in cage during period of immunization.

Offspring. January 22, 1907. Two young born and nursed with mother. Tested as follows:

(G. P. No. 430a). February 27, 1907. 36 days old. Two c. c. normal horse (roan) serum intraperitoneally. Marked symptoms.

(G. P. No. 430b.) Ditto. Marked symptoms.

(G. P. No. 430c.) Ditto. Mild symptoms.

FAMILY NO. 13.

(Immune female; untreated male.)

Female (G. P. No. 110). February 8 to 20, 1906. One c. c. Daily subcutaneous injections 1 c. c. antitoxic horse serum (Natl. IX, 19). No symptoms.

March 29, 1906. Six c. c. antitoxic horse serum (Natl. VIII, 18). Mild symptoms.

April 4 to 17, 1906. One c. c. daily injections antitoxic horse serum (Natl. IX, 17). No symptoms.

April 23, 1906. Six c. c. normal horse (roan) serum. Very slight symptoms.

May 15, 1906. Ditto. Very slight symptoms.

May 18 to June 27, 1906. One c. c. daily, same serum. No symptoms.

September 7, 1906. Six c. c. normal horse (roan) serum, intraperitoneally. Very slight symptoms.

Male (G. P. No. —). June 8, 1906. Untreated. Put in cage after immunization of female was well advanced.

Offspring. August 10, 1906. One young born, and tested as follows:

(G. P. No. 110a.) September 7, 1906. 27 days old. Two c. c. normal horse (roan) serum intraperitoneally. Very slight symptoms.

FAMILY NO. 14.

(Immune female; untreated male.)

Female (G. P. No. 426). September 7, 1906. Six c. c. normal horse (roan) serum, intraperitoneally. Slight symptoms.

[Previous treatment: May 19 to June 27, 1906, 1 c. c. daily subcutaneous injections of normal horse (roan) serum.]

Male (G. P. No. 426m). June 8, 1906. Untreated. Put in cage during period of immunization of female.

Offspring. July 24, 1906. Two young born, and tested as follows:

(G. P. No. 426a.) September 7, 1906. 41 days old. Two c. c. normal horse (roan) serum, intraperitoneally. Slight symptoms.

(G. P. No. 426b.) Ditto. Slight symptoms.

FAMILY NO. 15.

(Immune female; untreated male. Exchange.)

Female (G. P. No. 427). February 27, 1907. Six c. c. normal horse (roan) serum intraperitoneally. Severe symptoms.

[Previous treatment: 245 days prior (May 18 to June 26) 1 c. c. normal horse (roan) serum subcutaneously daily.] No symptoms.

Male (G. P. No. 42601). June 8, 1906. Normal. Put into cage during period of immunization of female.

Offspring. January 22, 1907. Two young born. At once placed to nurse with untreated female. Tested as follows:

(G. P. No. 427a.) February 27, 1907. 36 days old. Three c. c. normal horse (roan) serum intraperitoneally. Severe symptoms.

(G. P. No. 427b.) Ditto. Dead, 62 minutes.

Two young born of untreated female, but nursed with above female No. 427, tested as follows:

(G. P. No. P. 108a.) February 27, 1907. 36 days old. Three c. c. normal horse (roan) serum intraperitoneally. No symptoms.

(G. P. No. P. 108b.) Ditto. No symptoms.

GROUP E.

FAMILY NO. 16.

(Untreated female; sensitized male.)

Female (G. P. No. 606). September 7, 1906. Six c. c. horse serum intraperitoneally. No prior treatment. No symptoms.

Male (G. P. No. 606x). September 9, 1906. Six c. c. horse serum (roan) intraperitoneally. Dead, 17 minutes.

[Previous treatment: 106 days prior received 0.15 c. c. tox. $9 + \frac{1}{2\frac{1}{2}}$ c. c. antitoxic horse serum (Natl. VIII, 18).]

Offspring. Two young born August 4, 1906, and tested as follows:

(G. P. No. 606a.) September 9, 1906. 1 month old. Two c. c. normal horse serum into peritoneum. No symptoms.

(G. P. No. 606b.) September 9, 1906. 1 month old. Two c. c. normal horse serum (roan) into peritoneum. No symptoms.

FAMILY NO. 17.

(Untreated female; sensitized male.)

Females (G. P. No. 609). January 25, 1907. Six c. c. normal horse serum (horse No. 15), intraperitoneally. No prior treatment. No symptoms.

(G. P. No. 607). Ditto. No prior treatment. No symptoms.

Male (G. P. No. 4527). January 25, 1907. Six c. c. normal horse serum (horse No. 15), intraperitoneally. Dead, 37 minutes.

[Previous treatment: 1 year 13 days prior, 0.19 c. c. toxine No. 7+1 unit B27.]

June 8, 1906. Placed with untreated females Nos. 609 and 607.

Offspring. December 26, 1906. Three young born to G. P. No. 609. September 6, 1906. One young born to G. P. No. 607.

Young tested as follows:

(G. P. No. 609a). January 25, 1907. 30 days old. Two c. c. normal horse serum (horse No. 15) intraperitoneally. No symptoms.

(G. P. No. 609b). Ditto. No symptoms.

(G. P. No. 609c). Ditto. No symptoms.

(G. P. No. 607a). Ditto (141 days old). No symptoms.

We conclude from these experiments that—

1. Hypersusceptibility to the toxic action of horse serum is transmitted through the female guinea pig; the male has no influence.
2. The susceptibility is not transmitted through the milk.
3. Maternal transmission of hypersusceptibility succeeds, whether the female guinea pig is sensitized before or after conception.

Part X.

THE RELATION OF HYPERSUSCEPTIBILITY TO VARIOUS INFLUENCES.

We have already shown that hypersusceptibility to the action of horse serum in the guinea pig has no evident relation to hemolysis or precipitins. We offer the following experiments, planned with the object of correlating hypersusceptibility with other phenomena:

RELATION TO AGGRESSINES.

The work of Bail upon aggressine induced us to try whether a similar action may explain hypersusceptibility. The following experiments indicate that no relation exists between the two phenomena.

PERITONEAL FLUID FROM NORMAL GUINEA PIG INTO SENSITIZED GUINEA PIG.

Eight c. c. of normal horse (No. 15) serum was injected into the peritoneal cavity of a normal guinea pig. This produced no symptom. Two hours later the animal was chloroformed and about 6 c. c. of fluid was taken from the peritoneal cavity and injected into the following sensitized guinea pig:

G. P. No. 7050. Six c. c. of above fluid into peritoneal cavity. Dead, 20 minutes.

[Previous treatment: 57 days prior, 0.142 c. c. toxine No. 5 + $\frac{1}{250}$ c. c. antitoxic horse serum (S. 063H), subcutaneously.]

PERITONEAL FLUID FROM SENSITIZED GUINEA PIG INTO NORMAL GUINEA PIG.

Six c. c. of normal horse (No. 15) serum was injected into the peritoneal cavity of G. P. No. 7051, which had been sensitized fifty-seven days previously with 0.142 c. c. toxine No. 5 + $\frac{1}{250}$ c. c. antitoxic horse serum (S. 063H). The guinea pig developed typical symptoms and died in fifteen minutes as a result of the second injection. Fifteen minutes after the death of this guinea pig about 4 c. c. of the peritoneal contents were withdrawn and injected into the peritoneal cavity of a normal guinea pig. This caused no symptoms.

PERITONEAL FLUID FROM SENSITIZED GUINEA PIG INTO SENSITIZED GUINEA PIG.

Six c. c. normal horse (No. 15) serum was injected into the peritoneal cavity of a sensitized guinea pig (No. 7068) which had received fifty-five days previously a subcutaneous injection of 0.142 c. c. toxine No. 5 + $\frac{1}{250}$ c. c. antitoxic horse serum (Nat. V, 7). As a result of the second injection of horse serum the guinea pig had characteristic symptoms and died in thirty minutes. Fifteen minutes after the

death of this guinea pig about 3 c. c. of the peritoneal contents were collected and injected into the following sensitized guinea pig:

G. P. No. 7026. Three c. c. of above fluid into peritoneal cavity. Very severe symptoms.

[Previous treatment: 57 days prior, 0.142 c. c. toxine No. 5 + $\frac{1}{290}$ c. c. antitoxic horse serum (Ld. 8), subcutaneously.]

PERITONEAL FLUID FROM SENSITIZED GUINEA PIGS INTO NORMAL GUINEA PIGS.

The peritoneal contents were collected immediately after the death from 9 sensitized guinea pigs that had received 6 c. c. normal horse serum (No. 15) each; 3.5 c. c. of this fluid was injected into the peritoneal cavity of a normal guinea pig, but produced no symptoms.

After withdrawing the fluid of the peritoneal cavities of the above 9 guinea pigs the peritoneal cavities were washed with sterile salt solution and this fluid injected into the following normal guinea pigs:

G. P. No. A.—6 c. c. saline washings from above 9 guinea pigs, intraperitoneally.

No symptoms.

B.—5 c. c. saline washings from above 9 guinea pigs, intraperitoneally.

No symptoms.

C.—7.5 c. c. saline washings from above 9 guinea pigs, intraperitoneally.

No symptoms.

D.—10 c. c. saline washings from above 9 guinea pigs, intraperitoneally.

No symptoms.

E.—20 c. c. saline washings from above 9 guinea pigs, intraperitoneally.

No symptoms.

F.—6 c. c. saline washings from above 9 guinea pigs, intraperitoneally.

No symptoms.

G.—6 c. c. saline washings from above 9 guinea pigs, intraperitoneally.

No symptoms.

RELATION TO METHEMAGLOBIN POISONING.

The symptoms in the guinea pig somewhat resemble methemaglobin poisoning. We are indebted to Assistant Surgeon A. M. Stimson for comparative spectroscopic studies of the blood of normal guinea pigs and of the blood of susceptible guinea pigs immediately after death caused by a second injection of horse serum. No methemaglobin was found. Only the bands corresponding to oxyhemaglobin were seen in the blood of the guinea pigs examined immediately after death.

OXYGEN HAS NO INFLUENCE UPON THE SYMPTOMS.

A sensitized guinea pig was inoculated with horse serum and at once placed in an almost pure atmosphere of oxygen. Another sensitized guinea pig (not reinoculated) was placed under the same bell jar as a control. The inoculated pig developed symptoms and was dead in thirty-five minutes. The control animal showed no unusual manifestations after thirty minutes in the atmosphere of oxygen. It was then given an injection of horse serum and immediately replaced under the

bell jar. It developed characteristic symptoms and died in fifteen minutes.

G. P. No. 7028. Six c. c. antitoxic horse serum (Natl. IX, 17), intraperitoneally; immediately placed in an atmosphere of almost pure oxygen. Dead, 35 minutes.

[Previous treatment: 54 days prior, 0.142 c. c. toxine No. 5 + $\frac{1}{4}\frac{1}{10}$ c. c. antitoxic horse serum (Led. 8).]

Control G. P. Kept 30 minutes in same atmosphere. No symptoms.

[Previous treatment: 52 days prior, 0.142 c. c. toxine No. 5 + $\frac{1}{4}\frac{1}{10}$ c. c. antitoxic horse serum (PDCo. 07555A).]

At the end of 30 minutes in oxygen atmosphere, given 6 c. c. antitoxic horse serum (Natl. IX, 17), intraperitoneally. Dead, 15 minutes.

THE INFLUENCE OF DIPHTHERIA TOXINE UPON HYPERSUSCEPTIBILITY.

The question was raised by both Otto and us as to the influence of the diphtheria toxine in accentuating the phenomenon of hypersusceptibility.

While guinea pigs may be sensitized with fresh normal horse serum alone, it seemed to us and also to Otto that a greater degree of hypersusceptibility is produced when sensitized with a mixture of diphtheria toxine and antitoxic horse serum than when the horse serum alone is given at the first injection. It seems, however, that this is by no means always the case.

All the guinea pigs in the following series were sensitized with $\frac{1}{250}$ c. c. of antitoxic horse serum (Alex. A., 228) precipitated and dialyzed according to Gibson's method. One-half the animals received, in addition, 0.2 c. c. toxine No. 7 (MLD = 0.006). After thirty-one days interval all the guinea pigs were tested with 3 c. c. normal horse serum (roan) into the peritoneal cavity.

[All tested by injecting 3 c. c. normal horse (No. 15) serum intraperitoneally.]

No. G. P.	Previous treatment, 31 days prior.	Result.
720	$\frac{1}{250}$ c. c. precipitated antitoxic horse serum (Alex. A., 228), subcutaneously.	Dead, 28 minutes.
721	do.....	Dead, 12 minutes.
722	do.....	Very severe symptoms.
723	do.....	Dead, 44 minutes.
724	do.....	Dead, 10 minutes.
725	do.....	Very severe symptoms.
726	do.....	Very severe symptoms.
727	do.....	Very severe symptoms.
728	do.....	Very severe symptoms.
729	do.....	Very severe symptoms.
710	Ditto + 0.2 c. c. toxine No. 7.....	Dead, 10 minutes.
711	do.....	Very severe symptoms.
712	do.....	Dead, 10 minutes.
713	do.....	Dead, 43 minutes.
714	do.....	Dead, 31 minutes.
715	do.....	Very severe symptoms.
716	do.....	Dead, 27 minutes.
717	do.....	Severe symptoms.
718	do.....	Very severe symptoms.
719	do.....	Dead, 92 minutes.

THE INFLUENCE OF TETANUS TOXINE UPON HYPERSUSCEPTIBILITY.

Besredka and Steinhart^a intimate that guinea pigs sensitized with a mixture of tetanus toxine and antitetanic serum are not sensitive to subsequent injections of horse serum. These scientists, however, suggest that their failures on this point may have been due to the small amount of horse serum used at the first injection, viz, $\frac{1}{100000}$ and $\frac{1}{100000}$ c. c.

We tested some of our used tetanus guinea pigs to determine this point and found that tetanus toxine does not apparently influence the phenomenon of hypersusceptibility to horse serum. The guinea pigs were sensitized with 0.0006 gm. of a dried tetanus toxine, which represents 100 minimal lethal doses, plus various amounts of antitetanic serum. All those tested reacted to a second injection of horse serum.

Tetanus toxine.

No. G. P.	First injection.	Interval.	Second injection.	Result.
		<i>Days.</i>		
438	0.0006 gm. tetanus toxine A + $\frac{1}{5000}$ c. c. antitoxic horse serum (Hoechst) subcutaneously.	17	6 c. c. normal horse (roan) serum, intraperitoneally.	Dead, 30 minutes.
439	0.0006 gm. tetanus toxine A + $\frac{1}{7000}$ c. c. antitoxic horse serum (Hoechst) subcutaneously.	17	.....do	Dead, 30 minutes.
444	0.0006 gm. tetanus toxine A + $\frac{1}{12000}$ c. c. antitoxic horse serum (Hoechst) subcutaneously.	28	.....do	Very severe symptoms.
447	0.0006 gm. tetanus toxine A + $\frac{1}{3000}$ (M 2122) c. c. antitoxic horse serum subcutaneously.	28	.....do	Very severe symptoms.
451	0.0006 gm. tetanus toxine A + $\frac{1}{3000}$ (Pk) c. c. antitoxic horse serum subcutaneously.	28	6 c. c. normal horse (roan) serum, intraperitoneally (Pasteur Institute).	Dead, 10 minutes.
440	0.0006 gm. tetanus toxine A + $\frac{1}{8000}$ (Hoechst) c. c. antitoxic horse serum subcutaneously.	28	.....do	Dead, 10 minutes.

THE RELATION OF THE SPLEEN AND THYROID TO HYPERSUSCEPTIBILITY.

While we believe that this reaction is probably localized in the central nervous system, several experiments were undertaken to determine what influence the spleen or the thyroid gland may have upon the hypersusceptibility produced by the injection of horse serum.

^a Ann. Pasteur Inst., Vol. 21, No. 2, 1907, pp. 117-127.

The removal of the thyroid gland or the spleen either before or after an injection of horse serum does not prevent the phenomenon of hypersusceptibility.

It is of interest to note that the guinea pigs upon which splenectomy was performed lost much hair and became reduced in weight, although the appetite seemed to remain good.

THYROIDECTOMY.

G. P. No. 7017. 0.142 c. c. toxine No. 5 + $\frac{1}{100}$ c. c. antitoxic horse serum (Mem. A1103), subcutaneously.

55 days later, thyroid removed.

80 days from sensitizing inoculation and 25 days after thyroidectomy, given 6 c. c. normal horse (No. 15) serum, subcutaneously. Dead, 10 minutes.

G. P. No. 7018. 0.142 c. c. toxine No. 5 + $\frac{1}{250}$ c. c. antitoxic horse serum (Mem. 1103).

55 days later, thyroid removed.

125 days from sensitizing inoculation and 70 days after thyroidectomy, given 6 c. c. normal horse (No. 15) serum, intraperitoneally. Dead, 30 minutes.

G. P. No. X. Untreated. Thyroid removed.

11 days after thyroidectomy, given 0.15 c. c. toxine No. 9 + $\frac{1}{300}$ c. c. antitoxic horse serum (PD., 08516), subcutaneously.

17 days after sensitizing inoculation and 28 days after thyroidectomy, given 6 c. c. normal horse (No. 15) serum, intraperitoneally. Dead, 28 minutes.

G. P. No. 425W. Untreated. Thyroid removed.

11 days later, 0.15 c. c. toxine No. 9 + $\frac{1}{300}$ c. c. antitoxic horse serum (PD. 08516).

69 days after sensitizing inoculation and 58 days after thyroidectomy, 6 c. c. normal horse (No. 15) serum, intraperitoneally. Dead, 5 minutes.

SPLENECTOMY.

G. P. No. 7044. 0.142 c. c. toxine No. 5 + $\frac{1}{500}$ c. c. antitoxic horse serum (Hb. 21A), subcutaneously.

55 days later, spleen removed.

80 days from sensitizing inoculation and 25 days after splenectomy, 6 c. c. normal horse (No. 15) serum, intraperitoneally. Very severe symptoms.

G. P. No. 7024. 0.142 c. c. toxine No. 5 + $\frac{1}{250}$ c. c. antitoxic horse serum (Mem. 1103), subcutaneously.

55 days later, spleen removed.

80 days from sensitizing inoculation and 25 days after splenectomy, 6 c. c. normal horse (No. 15) serum, intraperitoneally. Very severe symptoms.

G. P. No. 380W. Spleen removed.

69 days later, 6 c. c. normal horse (No. 15) serum, intraperitoneally. No symptoms.

G. P. No. XY. Spleen removed.

11 days later, 0.15 c. c. toxine No. 9 + $\frac{1}{300}$ c. c. antitoxic horse serum (PD. 08516), subcutaneously.

28 days after splenectomy and 17 days after sensitizing, 6 c. c. normal horse (No. 15) serum, intraperitoneally. Severe symptoms.

G. P. No. 410W. Spleen removed.

11 days later, 0.15 c. c. toxine No. 9 + $\frac{1}{300}$ c. c. antitoxic horse serum (PD. 08516), subcutaneously.

58 days after sensitizing and 69 days after splenectomy, 6 c. c. normal horse (No. 15) serum, intraperitoneally. Marked symptoms.

Part XI.

MISCELLANEOUS.

FEEDING EXPERIMENTS WITH COOKED MEAT.

In our former work we showed that guinea pigs may be sensitized by feeding them blood serum or meat. We know that heating blood serum to 100° C. for fifteen minutes is sufficient to destroy its toxic action. We then asked ourselves the question, Would the heating of meat prevent the sensitizing action? The following experiments indicate that heat does destroy this property of meat, as far as the guinea pig is concerned.

In these experiments well-cooked horse meat was used. It was heated in the hot air sterilizer at 110° C. for thirty minutes. Two grams of it was fed to the animals daily from June 15 to June 30. Each guinea pig, therefore, received 32 gm. of the cooked meat. None of them showed symptoms when injected eighteen days later with 6 c. c. of normal horse serum.

No. G. P.	First treatment.	Interval.	Second treatment.	Result.
496	Fed 2 gm. horse meat, heated to 110° C. (hot air) 30 minutes, daily for 16 days.	<i>Days.</i> 18	6 c. c. normal horse (roan) serum, intraperitoneally.	No symptoms.
497	.....do.....	18	.....do.....	No symptoms.
498	.....do.....	18	.....do.....	No symptoms.
499	.....do.....	18	.....do.....	No symptoms.
500	.....do.....	18	.....do.....	No symptoms.

FEEDING EXPERIMENTS WITH RAW BEEF.

We know that guinea pigs fed with horse serum or horse meat are susceptible to subsequent injections of horse serum, and we are now able to show, by the following series of experiments, that guinea pigs fed with beef are susceptible to subsequent injections of cattle serum:

No. G. P.	First treatment.	Interval.	Second treatment.	Result.
501	Fed 2 gm. dried beef daily for 23 days.	<i>Days.</i> 19	6 c. c. cattle serum, intraperitoneally.	Mild symptoms.
502	.....do.....	19	.....do.....	Mild symptoms.
503	.....do.....	19	.....do.....	Severe symptoms.

RESULT OF CARDIAC INJECTIONS.

We have shown that guinea pigs may be readily sensitized by subcutaneous or intraperitoneal inoculations, and that the second injection produces symptoms when the serum is injected either under the skin or into the peritoneal cavity.

Besredka and Steinhardt have shown that the injection of serum into the brain of a sensitized guinea pig is very poisonous. We are able to confirm this observation. We then asked ourselves the question, Can guinea pigs be sensitized by injecting the horse serum directly into the heart? And can sensitized guinea pigs be poisoned by such injections directly into the circulation? We are now enabled to answer these questions affirmatively, in view of the following experiments:

No. G. P.	First injection.	Interval.	Second injection.	Result.
7077	0.142 c. c. toxine $5 + \frac{1}{210}$ c. c. antitoxic horse serum (NYBH. 17), subcutaneously.	<i>Days.</i> 131	1.5 c. c. normal horse (roan) se- rum, into heart.	Dead, 3 minutes.
7692	0.142 c. c. toxine $5 + \frac{1}{440}$ c. c. antitoxic horse serum (A. 247), sub- cutaneously.	35	0.01 c. c. normal horse (roan) se- rum, into heart.	Dead, 55 minutes.
7632	0.142 c. c. toxine $5 + \frac{1}{300}$ c. c. antitoxic horse serum (A. ppt. 31), subcutaneously.	44	1 c. c. normal horse (roan) serum, into heart.	Dead, $3\frac{1}{2}$ minutes.
7632	0.142 c. c. toxine $5 + \frac{1}{250}$ c. c. antitoxic horse serum (A. ppt. 31), subcutaneously.	44	.....do	Dead, 3 minutes.
7691	0.142 c. c. toxine $5 + \frac{1}{440}$ c. c. antitoxic horse serum (A. 247), sub- cutaneously.	35	.....do	Dead, 3 minutes.
Con- trol.	2 c. c. normal horse (roan) serum, into heart.	.....	.....	No symptoms.
	Same guinea pig	20 days later.	6 c. c. normal horse (roan) serum, in- traperitoneally.	Marked symptoms.

These experiments indicate that the endothelial cells lining the peritoneal cavity or the connective cells of the subcutaneous tissue do not necessarily play a rôle in the phenomenon we are studying.

THE GUINEA PIG REMAINS SUSCEPTIBLE A VERY LONG TIME.

That the guinea pig remains susceptible to the toxic action of horse serum a very long time is indicated in the following experiments, in

which 378 days elapsed between the first treatment and the second injection.

No. G. P.	First injection.	Interval.	Second injection.	Result.
4515	0.19 c. c. toxine 7+1 unit antitoxic horse serum (B. 27), sub- cutaneously.	<i>Days.</i> 238	6 c. c. normal horse (roan) serum, in- traperitoneally.	Dead, 30 minutes.
4527	-----do-----	378	6 c. c. normal horse (No. 15) serum in- traperitoneally.	Dead, 37 minutes.
4495	-----do-----	365	-----do----- Ditto, 2 days later.	No symptoms. Severe symptoms.
	Two young, born of above female (4495), tested as follows:			
4495a	When 7 days old, 1 c. c. normal horse (No. 15) serum, intraperitoneally.			Dead, 13 minutes.
4495b	When 9 days old, 1 c. c. normal horse (No. 15) serum, intraperitoneally.			Dead, 12 minutes.

The above guinea pig (No. 4495) showed no symptoms at all after receiving 6 c. c. of horse serum into the peritoneal cavity 365 days after the first injection. It was then given the same quantity of serum two days following and showed severe symptoms. We have had several such instances following intraperitoneal injections, and can only explain it by the fact that sometimes the serum enters the lumen of the intestine instead of the peritoneal cavity. We called attention to this probability in Hygienic Laboratory Bulletin No. 29, page 63.

THE EFFECT OF FIRST INJECTIONS OF HORSE SERUM INTO GUINEA PIGS.

Theobald Smith^a stated that guinea pigs which have received no preliminary doses of serum may die of a first injection; of 58 guinea pigs receiving 3 to 5 c. c. of diphtheria antitoxin with no preliminary treatment, 9 died and 49 showed no effect, making 15.5 per cent of the guinea pigs reacting to the first injection of horse serum. In reply to a question, Smith stated that he did not know whether or not the animals were the young of guinea pigs that had been treated.

We have injected many guinea pigs with horse serum and have never noted symptoms of death to follow the first injection, and can not help but believe that the results obtained by Smith are explained by our studies upon the maternal transmission of hypersusceptibility.

^aSmith, Theobald: Discussion of Rosenau and Anderson's paper on "Hypersusceptibility." Journ. Am. Med. Assn., Vol. 27, No. 13, Sept. 29, 1906, p. 1010.

Part XII.

SUMMARY AND CONCLUSIONS.

Profound chemical changes, perhaps in the central nervous system, are probably produced by the first injection of a strange proteid.

Guinea pigs may be sensitized with horse serum by injections directly into the heart. From this it appears that the cells lining the peritoneal cavity or the connective tissue cells of the subcutaneous tissue do not necessarily play a part in the phenomenon of hypersusceptibility.

Guinea pigs may be sensitized with the filtrate obtained from horse serum after precipitation with ammonium sulphate.

Formaldehyd does not appreciably influence the toxicity of horse serum and has no effect upon the sensitizing action.

The sensitizing substance is not dialyzable through a collodion sac.

The toxic principle is not altered by various ferments, such as taka-diastase, pancreatin, rennin, myrosin, invertin, emulsin, pepsin, ingluvin, malt, or papain, nor by certain alkaloids, such as atropin, strychnin, morphin, or caffenin; it is also not altered by calcium chlorid, sodium nitrate, sodium chlorid, magnesium sulphate, or ammonium sulphate.

Guinea pigs sensitized with horse serum do not react to the second injection of other proteid substances such as peptone, extract of peas, egg albumen, and milk. Conversely, guinea pigs sensitized with subcutaneous injections of these substances do not react to a subsequent injection of horse serum.

Guinea pigs show quite as high a degree to susceptibility to cattle, sheep, hog, dog, and cat serum as they do to horse serum.

Guinea pigs are quite susceptible to injections of hemoglobin, egg albumen, milk, or the extract of peas when given two injections with an interval of at least ten days. Simpler albuminous substances, such as peptone, seem to have slight sensitizing and poisonous properties, while lower nitrogenous compounds such as leucin and tyrosin possess none at all.

The reaction following a second injection of proteid matter in the guinea pig appears to be common to all the higher forms of albuminous substances, no matter from what source.

This phenomenon of hypersusceptibility in the guinea pig may be useful as a physiological test to distinguish true proteid substances from the lower forms of nitrogenous compounds.

The refined antitoxic serum, bulk for bulk, is quite as toxic to sensitized guinea pigs as the untreated serum from which it was precipitated and dialyzed. There is, however, a distinct advantage gained in using the concentrated serum, as the same number of units may be given in half the bulk, and it is well known that the serum reaction in man depends partly upon the quantity of serum given.

Serum from one horse appears quite as toxic as serum from other horses. The apparent differences seem to depend upon something connected with the sensitizing action.

The immunity produced by repeated injections, termed "anti-anaphylaxis" by Besredka and Steinhardt, appears to be relatively not quite as lasting and definite as many instances of active immunity against bacterial infections.

Hypersusceptibility to the toxic action of horse serum is transmitted through the female guinea pig. The male has no influence.

The susceptibility is not transmitted through the milk.

Maternal transmission of hypersusceptibility succeeds whether the female guinea pig is sensitized before or after conception.

The phenomenon of hypersusceptibility appears to have no relation to aggressins.

Methemaglobin is not present in the blood of guinea pigs dead of a second injection of horse serum.

Oxygen has no influence upon the symptoms.

Neither diphtheria toxine nor tetanus toxine appreciably influence the phenomenon of hypersusceptibility produced by horse serum.

The removal of the spleen or thyroid gland does not influence hypersusceptibility in the guinea pig.

Guinea pigs fed upon beef are susceptible to a subsequent injection of cattle serum.

Guinea pigs fed with cooked meat are not susceptible to subsequent injections of serum.

When a second injection of horse serum is given directly into the heart of a susceptible guinea pig the symptoms are manifested with promptness and virulence. Under these circumstances, 0.01 c. c. (injected directly into the heart) in one instance was sufficient to cause the death of a sensitized guinea pig.

Guinea pigs remain susceptible a very long time. There is no diminution in the susceptibility of a guinea pig to subsequent injections of horse serum for at least one year. The longest period we have observed is 480 days.

We have never seen symptoms resulting from the first injection of horse serum in a guinea pig born of an untreated mother.

The problem of hypersusceptibility has an important bearing upon the question of immunity. Our work indicates that hypersusceptibility is either an essential element or one stage in the process of

resistance to a certain class of diseases. We can not escape the conviction that further studies upon the phenomenon of hypersusceptibility will have an important bearing upon the prevention and cure of certain infectious processes. The hypersusceptibility obtained by bacterial proteids and the subsequent immunity furnishes data for this belief.

From our work upon the proteid substances of animal and vegetable origin, it was but a step to the albuminous content of the bacterial cell. Experimental studies upon the bacterial proteids are of the greatest importance on account of the practical uses to which results along this line may lead.

Hypersusceptibility may easily be induced in guinea pigs with proteid extracts obtained from the bacterial cell. The first injection of the extracts used by us seems comparatively harmless to the animal. A second injection of the same extract shows, however, that profound physiological changes have taken place. A definite period must elapse between the first and the second injection. The symptoms presented by the guinea pig as a result of the second injection resemble those caused by horse serum.

The phenomenon induced by a second injection is followed, in certain cases, by an immunity to the corresponding infection.

These results give a possible explanation of the period of incubation in some of the communicable diseases. Is it a coincidence that the period of incubation in a number of infectious diseases is about ten to fourteen days, which corresponds significantly with the time required to sensitize animals with a strange proteid? In certain infectious diseases with a short period of incubation, such as pneumonia, the crisis, which commonly appears in about ten days, may find a somewhat similar explanation. It is evident that diseased processes produced by soluble toxines, such as diphtheria and tetanus, do not belong to the category now under consideration.

The phenomenon of hypersusceptibility has been produced in the guinea pig by extracts obtained from the colon bacillus, yeast, hay bacillus, anthrax, tubercle bacillus, and the typhoid bacillus. The hypersusceptibility produced by the colon and typhoid bacillus was followed by a definite immunity to the corresponding infections. In the case of anthrax, however, immunity does not follow hypersusceptibility to the anthrax proteid. We are, therefore, not dealing with a general law applicable to all infections, but with certain limitations as in the case of antitoxic immunity.

NOTICE TO LIBRARIANS AND BIBLIOGRAPHERS CONCERNING THE SERIAL PUBLICATIONS OF THIS LABORATORY.

The Hygienic Laboratory was established in New York, at the Marine Hospital on Staten Island, August, 1887. It was transferred to Washington, with quarters in the Butler Building, June 11, 1891, and a new laboratory building, located in Washington, was authorized by act of Congress March 3, 1901.

The following *bulletins* [Bulls. Nos. 1-7, 1900 to 1902, Hyg. Lab., U. S. Mar.-Hosp. Serv., Wash.] have been issued:

No. 1.—Preliminary note on the viability of the *Bacillus pestis*. By M. J. Rosenau.

No. 2.—Formalin disinfection of baggage without apparatus. By M. J. Rosenau.

No. 3.—Sulphur dioxide as a germicidal agent. By H. D. Geddings.

No. 4.—Viability of the *Bacillus pestis*. By M. J. Rosenau.

No. 5.—An investigation of a pathogenic microbe (*B. typhi murium* Danyz) applied to the destruction of rats. By M. J. Rosenau.

No. 6.—Disinfection against mosquitoes with formaldehyd and sulphur dioxide. By M. J. Rosenau.

No. 7.—Laboratory technique: Ring test for indol, by S. B. Grubbs and Edward Francis; Collodium sacs, by S. B. Grubbs and Edward Francis; Microphotography with simple apparatus, by H. B. Parker.

By act of Congress approved July 1, 1902, the name of the "United States Marine-Hospital Service" was changed to the "Public Health and Marine-Hospital Service of the United States," and three new divisions were added to the Hygienic Laboratory.

Since the change of name of the Service the bulletins of the Hygienic Laboratory have been continued in the same numerical order, as follows:

No. 8.—Laboratory course in pathology and bacteriology. By M. J. Rosenau. (Revised edition March, 1904.)

No. 9.—Presence of tetanus in commercial gelatin. By John F. Anderson.

No. 10.—Report upon the prevalence and geographic distribution of hookworm disease (uncinariasis or anchylostomiasis) in the United States. By Ch. Wardell Stiles.

No. 11.—An experimental investigation of *Trypanosoma lewisi*. By Edward Francis.

No. 12.—The bacteriological impurities of vaccine virus; an experimental study. By M. J. Rosenau.

No. 13.—A statistical study of the intestinal parasites of 500 white male patients at the United States Government Hospital for the Insane; by Philip E. Garrison, Brayton H. Ransom, and Earle C. Stevenson. A parasitic roundworm (*Agamomermis culicis* n. g., n. sp.) in American mosquitoes (*Culex sollicitans*); by Ch. Wardell Stiles. The type species of the cestode genus *Hymenolepis*; by Ch. Wardell Stiles.

No. 14.—Spotted fever (tick fever) of the Rocky Mountains; a new disease. By John F. Anderson.

No. 15.—Inefficiency of ferrous sulphate as an antiseptic and germicide. By Allan J. McLaughlin.

No. 16.—The antiseptic and germicidal properties of glycerin. By M. J. Rosenau.

No. 17.—Illustrated key to the trematode parasites of man. By Ch. Wardell Stiles.

No. 18.—An account of the tapeworms of the genus *Hymenolepis* parasitic in man, including reports of several new cases of the dwarf tapeworm (*H. nana*) in the United States. By Brayton H. Ransom.

No. 19.—A method for inoculating animals with precise amounts. By M. J. Rosenau.

No. 20.—A zoological investigation into the cause, transmission, and source of Rocky Mountain "spotted fever." By Ch. Wardell Stiles.

No. 21.—The immunity unit for standardizing diphtheria antitoxin (based on Ehrlich's normal serum). Official standard prepared under the act approved July 1, 1902. By M. J. Rosenau.

No. 22.—Chloride of zinc as a deodorant, antiseptic, and germicide. By T. B. McClintic.

No. 23.—Changes in the Pharmacopœia of the United States of America. Eighth Decennial Revision. By Reid Hunt and Murray Galt Motter.

No. 24.—The International Code of Zoological Nomenclature as applied to medicine. By Ch. Wardell Stiles.

No. 25.—Illustrated key to the cestode parasites of man. By Ch. Wardell Stiles.

No. 26.—On the stability of the oxidases and their conduct toward various reagents. The conduct of phenolphthalein in the animal organism. A test for saccharin, and a simple method of distinguishing between cumarin and vanillin. The toxicity of ozone and other oxidizing agents to lipase. The influence of chemical constitution on the lipolytic hydrolysis of ethereal salts. By J. H. Kastle.

No. 27.—The limitations of formaldehyde gas as a disinfectant with special reference to car sanitation. By Thomas B. McClintic.

No. 28.—A statistical study of the prevalence of intestinal worms in man. By Ch. Wardell Stiles and Philip E. Garrison.

No. 29.—A study of the cause of sudden death following the injection of horse serum. By M. J. Rosenau and John F. Anderson.

No. 30.—I. Maternal transmission of immunity to diphtheria toxin. II. Maternal transmission of immunity to diphtheria toxin and hypersusceptibility to horse serum in the same animal. By John F. Anderson.

No. 31.—Variations in the peroxidase activity of the blood in health and disease. By Joseph H. Kastle and Harold L. Amoss.

No. 32.—A stomach lesion in guinea pigs caused by diphtheria toxine and its bearing upon experimental gastric ulcer. By M. J. Rosenau and John F. Anderson.

No. 33.—Studies in experimental alcoholism. By Reid Hunt.

No. 34.—I. *Agamofilaria georgiana* n. sp., an apparently new roundworm parasite from the ankle of a negress. II. The zoological characters of the roundworm genus *Filaria* Mueller, 1787. III. Three new American cases of infection of man with horse-hair worms (species *Paragordius varius*), with summary of all cases reported to date. By Ch. Wardell Stiles.

No. 35.—Report on the origin and prevalence of typhoid fever in the District of Columbia. By M. J. Rosenau, L. L. Lumsden, and Joseph H. Kastle. (Including articles contributed by Ch. Wardell Stiles, Joseph Goldberger, and A. M. Stimson.)

No. 36.—Studies upon hypersusceptibility and immunity. By M. J. Rosenau and John F. Anderson.

In citing these bulletins, beginning with No. 8, bibliographers and authors are requested to adopt the following abbreviations: Bull. No. —, Hyg. Lab., U. S. Pub. Health & Mar.-Hosp. Serv., Wash., pp. —.

MAILING LIST.

The Service will enter into exchange of publications with medical and scientific organizations, societies, laboratories, journals, and authors. Its publications will also be sent to nonpublishing societies and individuals in case sufficient reason can be shown why such societies or individuals should receive them. All applications for these publications should be addressed to the "Surgeon-General, U. S. Public Health and Marine-Hospital Service, Washington, D. C."

TREASURY DEPARTMENT

Public Health and Marine-Hospital Service of the United States

WALTER WYMAN, Surgeon-General

HYGIENIC LABORATORY.—BULLETIN No. 37

M. J. ROSENAU, Director

June, 1908

INDEX-CATALOGUE OF
MEDICAL AND VETERINARY ZOOLOGY

SUBJECTS:
TREMATODA AND TREMATODE DISEASES

BY

CH. WARDELL STILES

AND

ALBERT HASSALL



WASHINGTON
GOVERNMENT PRINTING OFFICE
1908

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CONTENTS.

	Page
Introduction.....	7
List of specific names.....	10
Bibliography of diseases, supergeneric, generic, and specific names.....	84
Addenda.....	385
Notice to Librarians and bibliographers concerning the serial publications of this laboratory.....	399

INDEX-CATALOGUE OF MEDICAL AND VETERINARY ZOOLOGY.

SUBJECTS: TREMATODA AND TREMATODE DISEASES.

By CH. WARDELL STILES, Ph. D.,

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INTRODUCTION.

The Index-Catalogue of Medical and Veterinary Zoology represents the combined card-catalogues of the Zoological Division of the United States Bureau of Animal Industry and of the Zoological Division, Hygienic Laboratory, United States Public Health and Marine-Hospital Service. These catalogues are arranged in three sections: Authors, Subjects, and Hosts.

OBJECT OF INDEX CATALOGUE.—The object in publishing the catalogue is to place it in permanent form. There have been four fires in the two laboratory buildings, but fortunately none of these gained headway. Were either building to be destroyed, and any part of the catalogue to be lost, the inconvenience such loss would entail in the regular work would be very extensive. By having the catalogue in printed form, it is made more accessible, and accidents are guarded against. By placing it at the disposal of other workers it is hoped to render their work less arduous, and especially it is desired to reduce the confusion in nomenclature.

SUGGESTIONS FOR USING THE INDEX.—It should be recalled that this is an index, not a treatise. Persons who consult it should therefore not expect to find in it the reasons for any given entry. Nor

does the entry of the synonymy in any given case mean that this synonymy is necessarily correct; it is simply quoting published synonymy. The same statement refers to the hosts cited.

In looking up the literature of any given species, the reader should consult the cross reference (pp. 10 to 83) for the various genera under which the species has been published, and the synonyms given in the general entries; by looking up these references in the general catalogue (pp. 84 to 383), all or practically all the references to the species are obtained.

SUGGESTIONS IN PUBLISHING NEW NAMES.—In indexing literature, one is impressed with the differences in arrangement of the material as published by different authors. Some writers arrange the systematic portions of their papers in such a manner that it is an easy matter to obtain the important data. Other authors are less careful in this respect, and their material is arranged, in some cases, in a style which almost defies indexing.

As a very convenient style we would suggest the following diagrams:

Genus FASCIOLA Linnæus, 1758.

1758: *Fasciola* Linn., 1758a, 644, 648-649 (*hepatica* [give here either the type species or all of the species in the order given by the author]). [Give origin of name, if desired.]

[Give here the synonymy in same style as foregoing entry.]

GENERIC DIAGNOSIS.—*Fasciolidæ*, *Fasciolinæ* [It is always very useful to give the name of the family and subfamily]: [Here give the generic diagnosis.]

TYPE SPECIES.—[If type has not been designated, state why the species in question is now selected; as by first species rule, tautonymy, elimination, etc.]

Species FASCIOLA HEPATICA Linnæus, 1758.

1758: *Fasciola hepatica* Linn., 1758a, 648-649 [add here type host and type locality].

[Add synonymy here, in same style as foregoing entry.]

SPECIFIC DIAGNOSIS.—*Fasciola* (p. —) [give page where generic diagnosis is printed]:

[Add here specific diagnosis.]

HABITAT.—[Give hosts and geographic distribution here.]

TYPE SPECIMEN.—[Give museum number of type specimen.]

A list of hosts, together with the parasites found in them, is an exceedingly useful adjunct to any paper dealing with parasites. Several authors have published such lists, but most authors fail to do so. If the plan of giving a compendium of hosts with every paper were more generally adopted, the papers would be very much more valuable. In indexing the hosts, especially in papers by certain authors, we have met with considerable difficulty, for it is often necessary to read carefully an entire article in order to avoid overlooking the hosts. And even then it is, unfortunately, not exceptional that the reader can not be certain that he is indexing correctly.

ABBREVIATIONS.

As a general rule we do not favor the use of abbreviations. In a work of this kind, however, in which certain names are repeated from 50 to 2,000 times, the use of abbreviations becomes necessary, in order to reduce both the bulk and the expense.

GENERIC NAMES.—The general rule is here followed of abbreviating all generic names ending in *-stoma* or *-stomum* to *-st*, as *Amphist.* for *Amphistoma* and *Amphistomum*, *Dist.* for *Distoma* and *Distomum*, etc.

All names ending in *-cercaria* are abbreviated to *-cerc.*, as *Cerc.* for *Cercaria*, *Eucerc.* for *Eucercaria*, etc.

All other abbreviations can, we believe, be understood without explanation—*Fasc.* for *Fasciola*, *Plan.* for *Planaria*, etc.

AUTHORS' NAMES.—The following abbreviations refer to authors' names:

Abildg. for Abildgaard.
Ben. for Beneden.
Bettend. for Bettendorf.
E. Bl. for E. Blanchard.
R. Bl. for R. Blanchard.
Blainv. for Blainville.
Brand. for Brandes.
Burm. for Burmeister.
Cerf. for Cerfontaine.
Crep. for Creplin.
Cuv. for Cuvier.
Dav. for Davaine.
Dies. for Diesing.
Duj. for Dujardin.
Erc. for Ercolani.
Fil. for Filippi.
Fischder. for Fischöder.
Fraip. for Fraipont.
Gamb. for Gamble.
Gerv. for Gervais.
Goldb. for Goldberg.
Hass. for Hassall.
Jægers. for Jægerskiöld.
Kath. for Kathariner.
Kholodk. for Kholodkowski.
Kowal. for Kowalewski.
Kuech. for Kuechenmeister.

Leuck. for Leuckart.
Levin. for Levinsen.
Linn. for Linnæus.
Linst. for Linstow.
Lint. for Linton.
Lœnnb. for Lœnnberg.
Mol. for Molin.
Mont. for Monticelli.
Moul. for Moulinié.
Mueh. for Muehling.
Nord. for Nordmann.
Odh. for Odhner.
Ols. for Olsson.
Pag. for Pagenstecher.
Par. for Parona.
Per. for Perugia.
Perr. for Perroncito.
Poir. for Poirier.
St.-Remy for Saint-Remy.
Sieb. for Siebold.
Sons. for Sonsino.
Staff. for Stafford.
Stoss. for Stossich.
Rail. for Railliet.
Rud. for Rudolphi.
Tasch. for Taschenberg.
Will.-Suhm for Willemoes-Suhm.

OTHER ABBREVIATIONS.—All literature references are taken from the Author's Catalogue of this Index (Bull. 39, U. S. Bureau of Animal Industry). The following common abbreviations are also used:

f. for family.
g. for genus.
m. for monotypical.
t. h. for type host.
t. l. for type locality.

tld. for type by later designation.
tod. for type by original designation.
subf. for subfamily.
subg. for subgenus.

ALPHABETICAL LIST OF SPECIFIC AND SUBSPECIFIC NAMES IN TREMATODA.

The following is a complete list of all the specific and subspecific names of *Trematoda*, so far as contained in our card catalogue at date of going to press, together with the generic names with which they have been used. The references are the earliest reference we have found for the names in question, together with the type host and type locality, so far as we have as yet traced these.

It has been found necessary to include in this list some species which are not *Trematoda*. (See addenda, p. 385.)

- abbreviata* Olss., 1876, 12, t. h. *Acanthias vulgaris*.—1876: *Onchocotyle*. 1899: *Squalonchocotyle*.
- abbreviatum* Brand., 1888a, 55, t. h. *Crocodilus*; Brazil.—1888: *Diplost*.
- abdominalis* Gæze, 1782a, 41, *F. intestinalis* Linn., 1758a, renamed, includes also *Ligula piscium*.—1782: Fasc. [*Ligula, cestode*.]
- aberrans* Goto, 1894a, 198, t. h. *Belone schismatorhynchus*; Hagi, Japan.—1894: Axine.
- aberrans* Looss, 1902m, 630, t. h. *Chelone mydas*; Egyptian coast.—1902: *Microscaphidium*.
- absconditus* Looss, 1901e, 631, t. h. *Bagrus bayad*, *B. docmac*.—1901: *Acanthochasmus*.
- acalepharum* Costa (1864), 90, larva in *Acalephen*.—1864: *Macrurochæta* (type) [1894: *Cerc. setifera*.]
- acanthocephalum* Stoss., 1887, 94, t. h. *Belone acus*; Triest.—1887: Dist. 1898: *Echinost*. 1899: *Tergestia* (probably type)
- acanthoides* Rud., 1819a, 114, t. h. *Phoca vitulina*; Berlin.—1819: Dist. (*Echinost*). 1860: *Echinost*.
- acanthurum* Par. & Per., 1896, 2, t. h. *Brama rayi*; Genova.—1896: *Microcotyle*.
- acanthus* Nicoll, 1906, 514, t. h. *Larus argentatus*.—1906: *Zeugorchis*, type. 1907: *Parorchis*, type.
- acariæum* Looss, 1902m, 415, t. h. *Thalassochelys corticata*; Egyptian coast.—1902: *Enodiotrema*.
- acceptum* Looss, 1901b, 203, t. h. *Crenilabrus pavo*, *C. griseus*, bladder; Triest.—1901: *Phyllodist*.
- acerca* Biehringer, 1884a, 3, t. h. *Onchidium carpenteri* Stearns.—1884: *Cerc*.
- acerinæ cernuæ* Claparède (1857), t. h. *Acerina cernua*.—1857: *Tetracotyle*.
- acervo-calcapthorum* Erc., 1881e, 21, for *acervocalciferum* (Dist.).
- acervocalciferum* Gastaldi, 1854, 6, t. h. *Rana esculenta*.—1854: Dist.
- acervocalcoforum* Linst., 1875, 193, for *acervocalciferum* (Dist.).
- acervocalcophorum* Erc., 1881e, 20, for *acervocalciferum* (Dist.).
- acetabularis* Braun, 1900, 388, for *acetabulatus* (*Pycnopus*).
- acetabulatus* Looss, 1899b, 611, t. h. *Vesperugo kuhli*; apparently Egypt, January.—1899: *Pycnopus*.
- acquans* Sons., 1891, 263, for *æquans* (*Diplectanum*).
- acreatum* Stoss., 1892, 18, for *ocreatum* (*Monost*.).
- actæonis* Pag., 1862, 306, t. h. *Acteon viridis*; Cete.—1862: Dist.
- aculeata* Erc., 1881, see Par., 1894, 163, t. h. *Lymnæa auricularis*; Bologna.—*Cerc*.

- aculeatum* Nitzsch, in Giebel, 1857, 266, t. h. *Strix bubo*.—1857: Dist.
- aculeatum* Linst., 1879b, 338, t. h. *Testudo græca*; loc. not given.—1879: Monost. [1890: Dist. linstowii.] 1901: *Telorchis*.
- aculeatum* Par. & Per., 1889, 745, t. h. *Corvina nigra*; Genova.—1889: *Diplectanum*.
- aculeatum* Couch, —.—: Trist. [1898: *T. molæ*.]
- aculeatus* Odhn., 1905, 297, t. h. *Conger vulgaris*; Mediterranean, Belgium, Sweden.—1905: *Prosorhynchus*.
- aculeatus* Dies., 1858, 275, t. h. *Planorbis marginatus*.—1858: *Bucephalus* (*Bucephalopsis*).
- acuta* Goto, 1894a, 217, t. h. *Thynnus sibi*; Hagi, Osatsubé, Japan, August.—1894: Hexacotyle.
- acutum* Leuck., 1842, 33, t. h. *Mustela putorius*.—1842: Dist.
- adhærens* Braun, 1901, 942, t. h. *Mycothera* sp.; Brazil.—1901: *Glaphyrost.* (type).
- adhærens* Looss, 1901, 624 (= *vallei* 1899, type of *Lophotaspis*), t. h. *Thalassochelys corticata*; Egypt.—1901: *Lophotaspis* (type).
- adolphi* Stoss., 1902, 19, t. h. *Grus cinerea*; Siberia.—1902: *Cyclocelum*.
- [*adriaticum* v. Dr. (Dist. [tunicate].)]
- aduncum* Lint., 1905, 327, t. h. *Opsanus tau*; Beaufort, N. C.—1905: Dist.
- advena* Duj., 1843, 338, t. h. *Sorex*; Europe.—1843: *Brachylaima* (type). [1845: Dist. (*Brachylaimus*, type).] [1847: *Brachylæmus*.] 1892: Dist. [*Brachylaimus* (type).]
- æglefini* Mueller, 1776, 224, t. h. *Gadus æglefinus*, int.—1776: Fasc. 1803: Dist. [1850: Dist. simplex.] [1904: *Sinistroporus* (type).]
- æglefini* Ben., 1870, 57 [see also *æglefini* Mueller, 1776].—1870: Dist.
- ægrefini* Bosc., 1802a, v. 1, for *æglefini* 1776 (Fasc.).
- ægyptiaca* Odhn., 1905, 370, Monost. verrucosum of Looss, renamed.—1905: *Notocotyle*.
- ægyptiacum* Cobbold, 1876t, 757, t. h. *Equus*; Egypt.—1876: *Diplost.* 1876: *Hemist.* 1893: *Gastrodiscus*.
- ægyptiacum* Looss, 1896b, 33, t. h. buffles, bœufs, moutons; Egypt.—1896: Dist. 1896: Dist. hepaticum. 1898: Fasc. hepatica. 1899: Fasc. [1902: *F. gigantea*.]
- ægyptiaca* Cobbold, 1866, 6, heterophyes 1852, renamed.—1866: *Heterophyes* (type).
- ægyptiacus* Looss, 1898a, 459, apparently lapsus for *gregarius*.—1898: *Gastrothylax*.
- æquale* Duj., 1845a, 410, t. h. *Strix flammea*; Rennes.—1845: Dist. (*Brachylaimus*). 1892: *Mesogonimus*. [1899: *Clinost.* ("possibly").]
- æqualis* Looss, 1902, 888, t. h. dogs and cats; Egypt.—1902: *Heterophyes*.
- æquans* Wagener, 1857, 99, t. h. *Labrax lupus*.—1857: *Dactylogyrus*. 1858: *Diplectanum* (probably type).
- æquans* Looss, 1899b, 652, t. h. *Gerbillus ægyptius*; Egypt.—1899: *Heterolope*. 1900: *Harmost.*
- æquatus* Staff., 1905, 691, t. h. *Eutenia sirtalis*; Canada.—1905: *Zeugorchis* (type).
- æffine* Dies., 1850a, 410, based on Schmitz, 1826, 15, figs. 1–13, t. h. *Bombinator igneus*; Berlin.—1850: *Hexathyridium*.
- æffine* Dies., 1850a, 359 [not Rud., 1819a]. Monost. tenuicolle Rud., 1819a, renamed, t. h. *Lampris guttatus*; Groningæ.—1850: Dist.
- æffine* Leidy, 1858a, 110, t. h. *Fiber zibethicus*; U. S. A.—1858: Monost.
- æffine* Rud., 1819a, 110, t. h. *Perca cirrosa*; Arimini.—1819: Dist. 1845: Dist. (*Apo-blema*). 1901: *Derogenes*.
- æffine* Lint., 1898, 511, t. h. *Paralichthys dentatus*; Woods Hole.—1898: *Octoplectanum*. 1901: *Dididophora*.
- æffinis* Eichwald, 1829a, 247, t. h. *Lymnæus stagnalis*.—1829: *Cerc.*
- æffixus* Looss, 1899b, 587, t. h. *Corvus cornix*, *Falco tinnunculus*, *Circus æruginosus*, *Recurvirostra avocetta*; Egypt.—1899: *Pygorchis* (type).
- africanus* Stiles, 1901, 594, bursicola Looss, 1899 [not Crep., 1837], renamed.—1901: *Echinost.*
- africanum* Stoss. in Galli-Valerio, 1906, 49, t. h. a fish; French Congo.—1906: *Clinost.*
- agamos* Linst., 1872, 1, t. h. *Gammarus pulex* L.—1872: Dist.
- agassizi* Goto, 1899a, 286, t. h. *Remora brachyptera*; Newport, R. I.—1899: *Dionchus* (type).

- agassizii* Mont., 1905, 69, for *agassizi* (Dionchus).
- agilis* Fil., 1857c, 4, t. h. *Lymnæus stagnalis*; Turin.—1857: Cerc. 1858: C. (Gymnocephala).
- agilis* Leidy, 1858a, 110, free in Delaware River.—1859: Cerc.
- alacre* Looss, 1901, 401, t. h. *Labrus maculatus*, L. *merula*, *Crenilabrus pavo*, C. *quinquemaculatus*, C. *griseus*.—1901: Dist.
- alata* Gœze, 1782a, 176, t. h. *Canis vulpes*; Germany.—1782: Plan. [1788: *Alaria vulpis*, type]. 1790: *Festuc.* 1793: *Fasc.* 1800: *Dist.* 1819: *Holost.* 1850: *Hemist.* (type). 1889: *Emist.* 1894: *Diplost.* (*Hemist.*). 1896: *Conchosomum* (type).
- alata* Hemp. & Ehrenb., 1828a, in water; Berlin.—1828: *Histrionella.* 1856: Cerc.
- alatus* Linst., 1878, 227, t. h. *Blicca bjœrkna*; Europe.—1878: *Dactylogyrus.*
- alba* Erc., 1881c, 12, for Cerc. *brunnea* var. *Dies.*—1881: Cerc.
- alba* Cerf., 1899a, 377, t. h. *Raja alba*.—1899: *Rajonchocotyle.*
- albicolle* Rud., 1819a, 98, t. h. *Falco pennatus*; Mus. Vien.—1819: *Dist.* 1845: D. (*Dicrocoelium*). 1901: *Dicrocoelium.*
- albidum* Braun, 1893, 347, t. h. *Felis catus domestica*; Königsberg i. Pr.—1893: *Dist.* (*Dicrocoelium*). 1896: *Opisthorchis.* 1899: *Metorchis* (type).
- albidum* Brand., in Ofenheim, 1900, 145, t. h. *Aëtobatis narinari*; Pacific.—1900: *Anaporrhutum* (type).
- albocœruleum* Stoss., 1889, 28, t. h. *Sargus salviani*; Triest.—1889: *Dist.*
- album* Kuhl & van Hasselt, 1822a; 1824a, 311 t. h. *Chelonia midas*; Îles des Cocos.—1822: *Monost.* 1899: *Cricocephalus* (type).
- album* Stoss., 1890, 42, t. h. *Cantharus orbicularis*; Triest.—1890: *Dist.* [1899: ? *Creadium*.] 1904: *Lepocreadium* (type). 1901: *Allocreadium.*
- alcedinis* Par. & Per., 1890, 7, t. h. *Smaris alcedo*; Genova.—1890: *Microcotyle.*
- allostomum* Dies., 1850a, 367, *Dist. colubri murorum* 1811 and 1819 renamed, t. h. *Tropidonotus natrix*; M. C. V.—1850: *Dist.*
- alosæ* Hermann, 1782, 180, t. h. *Clupea alosa*.—1782: *Mazocraes* (type).
- alosæ* Hermann, 1783a, 46, t. h. *Maifisch im Rhein*, *Clupea alosa*.—1783: *Fasc.* [1850: *Dist. appendiculatum*.]
- alosæ* Leuck. (1828) [see *lanceolatum*].—*Octobothrium.* [1845: *O. lanceolatum*.]
- alosæ* Mont., 1888, 13.—1888: *Ophycotyle.*
- alosæ* Kuhn 1829, 358, t. h. *Clupea alosa*.—1829: *Octost.* (type). [1852: *Octobothrium lanceolatum*.]
- alosæ* Mayer, 1841a, see *lanceolatus alosæ.*
- alosæ* Ben. & Hesse, 1863; 1864, 102, t. h. *Alosa vulgaris*.—1864: *Glossocotyle* (type). 1890: *Octobothrium* (*Glossocotyle*).
- aloyxiæ* Stoss., 1885, 161, t. h. *Corvina nigra*; Triest.—1885: *Dist.* 1886: D. (*Brachylaimus*). [1899: *Anoiktost.*, type.]
- alpina* Dana.—1891: *Plan.*
- altemon* Ben., 1870, 48, see *atomon* (*Dist.*).
- aluconis intestinale* Rud., 1819a, 119, t. h. *Strix aluco*.—1819: *Dist.* [1892: sub *Echinost. apiculatum*.]
- aluconis thoracicum* Rud., 1819a, 119 (*Plan. pusilla* Braun, 1790, pro parte renamed); t. h. *Strix aluco*.—1819: *Dist.*
- alveum* Mehlis, in Crep., 1846, 142, t. h. *Anas*, *Cygnus*, see p. 323.—1845: *Monost.* 1892: *Notocotyle.*
- alveatum* Mehlis of Mueh., 1898, renamed *alveiforme* Cohn, 1904.
- alveiforme* Cohn, 1904, 230, *alveatum* Mehlis of Mueh., 1898, renamed.—1904: *Monost.*
- americana* Hass., 1891c, 359, t. h. *Bos taurus*; U. S. A.; *carnosa* Hass., 1891, renamed.—1891: *Fasc.* 1892: *Dist.* [*Fasc. magna*.]
- americanus* Staff., 1902, 719, t. h. *Rana virescens*; Ashbridge's Bay, Toronto.—1905: *Cephalogonimus.*
- americanum* Osborn, 1903, 252, t. h. *Amblystoma punctatum*; Minnesota.—1903: *Phyllodist.*
- amiuri* Staff., 1904, 402, t. h. *Amiurus nebulosus*; Canada.—1904: *Monost.*
- amphibothrium* Wagener, 1857, 57, t. h. *Acerina cernua*.—1857: *Dactylogyrus.*

- amphilucius* Looss, 1899b, 565, for *amphilucius* (Metorchis).
- amphileucum* Looss, 1896b, 55, t. h. *Naja haje*; Alexandria, Egypt.—1896: Dist. 1898: Opisthorchis. 1899: Metorchis.
- amphiorchis* Braun, 1899b, 719, t. h. *Thalassochelys corticata* at Triest, *Chelone mydas* and *Podocnemis expansa*.—1899: Dist. 1899: *Anadasmus* (type). [1901: *Orchidasma* (type).] 1901: *Orchidasma* (type).
- amphistoma* Nord., 1840, 616, probably lapsus (D[istoma]).
- amphistomi subclavati* Ben., 1858a, 82, in *Cyclas cornea*, etc.—1858: Cerc. [1859: *Diplodiscus subclavatus*.]
- amphistomoides* Bojanus, 1817b, 270, t. h. *Castor fiber*.—1817: Dist. 1817: *Dystoma*. [1850: *Amphist. subtriquetrum*.] [1902: *Cladorchis* (*Stichorchis*) *subtriquetrus*.]
- amplicava* Looss, 1899b, 606, *D. cygnoides* var. *A.* of Bensley, 1897, renamed.—1899: *Gorgodera*.
- amphillaceum* Buttel-Reepen, 1900, 586, in Cetacean; Indian Ocean.—1900: Dist.
- anarrichæ* Jacoby, 1900, 13, for *anarrichæ*.—1900: Dist.
- anarrichæ* Rud., 1819a, 121; *anarrichæ lupi* Rathke, pars (from intestine) renamed.—1819: Dist. [1819: ? *D. appendiculatum*.]
- an[arrichæ] lup[i]* Rathke, 1799, 70, t. h. *Anarrichas lupus*.—1799: Dist. [1809: *D. incisum*.]
- anastrophus* Fischder., 1901, 375, t. h. *Cervus dichotomus*; Brazil.—1901: *Balanorchis* (type).
- anatinus* Markow, 1902, 1903a, 287, t. h. *Anas boschas dom.*—[1902: *Prosthogonimus*.] 1902: *Prosthogonimus*.
- anatis* Schrank, 1788, xvi, 164, t. h. ducks.—1788: *Festucaria* [type]. 1790: Fasc. 1800: Dist. [1815: *Monostomeus*, type.] [1850: Dist. *echinatum*.] [1892: *Echinost. echinatum*.] [1901: ? *Echinost. echinatum*.]
- anatis* Rud., 1819a, 793, for *anatis querquedula* (*Amphist.*).
- anatis domesticæ* Rud., 1809a, 431 (*Hirudo fasciolaris* Mueller, 1788, Fasc. *anatis* Bruguière, 1791, renamed).—1809: Dist. [1850: Dist. *ovatum*.]
- anatis fusæ* Viborg, 1795, 243, t. h. *Anas fusca*; Copenhagen.—1795: Dist.
- anatis nigræ* Dies., 1858e, 322, t. h. *Anas nigra*.—1858: Holost.
- anatis querquedula* Rud., 1819a, 92, t. h. *Anas querquedula*; Cat. Ent. Vien.—1819: *Amphist.*
- anatis tadornæ* Viborg, 1795, 196, t. h. *Anas tadorna*.—1795: *Strigea*. 1809: *Amphist.* [1814: *A. isostomum*.] [1845: Holost. *erraticum*.]
- anceolatum* Braun, 1892a, 677, misprint for *lanceolatum* (Dist.).
- anceps* Mol., 1859, 845, t. h. *Fulica atra*; Padua.—1859: Dist. 1892: *Echinost.*
- anceps* Looss, 1899b, 629, t. h. *Machetes pugnax*; Marg, April.—1899: *Prymnopteron*. 1901: *Prosthogonimus*. [1902: *Pros. cuneatus*.]
- anchoratus* Duj., 1845a, 480, t. h. “la carpe;” Europe.—1845: *Gyrodactylus*. 1857: *Dactylogyrus*. [1879: *D. auriculatus*.]
- ancylus lacustris* Dies., 1855a, 400, based on Baer, 1827b, 656, t. h. *Ancylus lacustris*.—1855: Dist. 1855: *Cercariaeum*.
- andersoni* Cobbold, 1876, 46, t. h. *Platanista gangetica*.—1876: Dist. 1892: *D.* (*Brachylaimus*).
- annelidicola* Mont., 1888, 88, for *annelidicola* (*Cyclatella*).
- anguillæ* Gmelin, 1790a, 3056, t. h. *Anguilla*; refers to Leeuwenhoek, 316, fig. 6.—1790: Fasc. 1803: Dist. [1819: ? *D. polymorphum*.]
- anguillulæ* Dies., 1850a, 340, lapsus for *anguillæ* Abildg. and Zed.—1850: Dist.
- anguis* Linst., 1885, 250, t. h. *Anguis fragilis*.—1885: Dist. 1895: *Agamodist.*
- angulata* Mueller, 1774, 58, “in fundo arenoso oceani.”—1774: Fasc. 1776: *Planaria*. —: *Amphiporus*.
- angulatum* Duj., 1845a, 401 (not Fasc. *angulata* Mueller, 1776), t. h. *Anguilla*; Morbihan.—1845: Dist. [*Podocotyle* [type]]. 1901: *Podocotyle*, type. [1905: see *Podocotyle atomon*.]
- angusta* Rail., 1895, 338, see *hepatica angusta*.—1895: Fasc. *hepatica*. 1899: Fasc. [*F. gigantea*.]
- [*angusta* Muenster, 1842, 98.—*Hirudinella*. *Hirudella*. Leach.]

- angusticollis* Hausmann, 1896a, 391, t. h. Cottus gobio; Basel, Switzerland.—1896: Dist. 1899: Creadium. 1901: Allocreadium.
- angustum* Staff., 1900, 407, t. h. Chrysemys picta.—1900: Dist. 1905: Telorchis.
- angustum* Schlotthauber, 1860, 129, t. h. Scolopax gallinago.—1860: Monost.
- aniarum* Leidy, 1891a, 414, t. h. Tropidonotus sipedon.—1891: Dist.
- annelidicola* Ben. & Hesse, 1863, 1864a, 82, t. h. ? Clymene.—1863: Cyclatella (type). [1869: Loxosoma.]
- annulatum* Dies., 1850a, 386, t. h. Gymnotus electricus; Brazil.—1850: Dist. 1860: Echinost. 1892: Dist. (Echinost.).
- annulicauda* Bory, 1825b, 253.—1825: Histriionella.
- annuligerum* Nord., 1832, 53, t. h. Flussbarsch, Perca fluviatilis.—1832: Dist. 1886: D. (Brachylaimus).
- anodontæ* Osborn, 1898, 416, t. h. Unio luteolus, Anodonta; New York.—1898: Platyaspis. [1899: Cotylaspis insignis.]
- anonymum* Dies., 1858e, 341, based on Bellingham, 1844, 428, t. h. Gadus æglefinus, G. euxinus, Merlangus carbonarius, M. vulgaris; Ireland.—1858: Dist.
- anseris* Gmelin, 1790a, 3055; Fasc. verrucosa Frœlich, 1789, renamed; t. h. Anser domesticus, rectum: Europe.—1790: Fasc. [1850: Notocotyle seriale.] [1861: Monost. verrucosum.] [1905: Catatropis verrucosa, type.]
- anthos* Braun, 1899b, 720, t. h. Chelonæ; Yedo.—1899: Dist. 1901: Calycodes (type).
- anticum* Staff., 1905, Apr. 11, 693, t. h. Vespertilio subtilis Say; Canada.—1905: Leci-thodendrium.
- apertum* Rud., 1819a, 108, t. h. Apogon ruber s. Mullus imberbis; Naples.—1819: Dist. 1845: D. (Apoblema).
- apiculata* Rud., 1803, 31; D. stridulæ Reich, 1801, renamed.—1803: Fasc. 1809: Dist. (Echinost.). 1860: Echinost.
- apiculatum* Olss., 1869, 4, t. h. Acanthias vulgaris; Skagerrack.—1869: Microbo-thrium (type). 1890: Pseudocotyle.
- apodis* Packard, 1882, 142, in egg-sacks of Apus.—1882: Dist.
- apolaimum* Heymann, 1905, 91, t. h. Kachuga tectum (Gray) small int.—1905: Dist.
- appendiculata* Rud., 1802, 78, t. h. Clupea alosa, stomach; Europe.—1802: Fasc. 1808: Dist. [1809: Hemius (type).] 1845: Dist. (Apoblema [type]). 1847: Apoblema. 1896: Hemius (type).
- appendiculata* Frœlich, 1802, 56 (not Rud., 1802) t. h. Anas boschas; Europe; see papillatum Rud., 1814a, 105, renamed oxycephalum Rud., 1819a, 98, 375.—1802: Fasc. [1814: Dist. oxycephalum.] [1850: Dist. oxycephalum.]
- appendiculata* Leidy, 1877, 202, t. h. Helix arborea.—1877: Dist. [1891: D. centrap-pendiculatum.]
- appendiculata* Kuhn, (1829c), 460, t. h. Squalus catulus.—1829: Polyst. 1840: Hexa-bothrium (type). 1850: Onchocotyle (type). 1879: Hexathyridium. 1890: Octocotyle. 1899: Acanthonchocotyle (type).
- apri* Gmelin, 1790a, 3054, see hepatica apri.—1790: Fasc. hepatica.
- aquilæ* Leidy, 1887, 24, t. h. Haliaëtus leucocephalus.—1887: Dist.
- arcantum* Nickerson, 1900, Oct., 811, in frogs.—1900: Dist. 1902: Pleurogenes. 1905: Loxogenes (type).
- arcticus* Odhn., 1905, 339, t. h. Phoca barbata; Spitzbergen.—1905: Orthosplanchnus (type).
- arcuata* Steenstrup, see Par., 1894, 164, t. h. Lymnæa obscura. L. stagnalis; Bologna.—Cerc.
- arcuata* Sons., 1890, 112, t. h. Lichia amia; Pisa.—1890: Octocotyle. 1890: Octo-bothrium. [1890: Octocotyle striata.]
- arcuatum* Brand., 1892b, 507, t. h. in aquatic birds [probably Anas clangula; Ber-lin].—1892: Monost. [1892: Cyclocœlum.] 1902: Cyclocœlum.
- arcuatum* Duj., 1845a, 410, t. h. Corvus glandarius; Rennes.—1845: Dist. (Brachy-laimus).
- arcuatum* Lint., 1900, 277, t. h. Sarda sarda; Woods Hole.—1900: Gasterost.
- ardeæ* Gmelin, 1790a, 3055, t. h. Ardea stellaris. int.; Europe; Planaria teres pars Gœze, 1782a, renamed.—1790: Fasc. 1803: Dist. —: Planaria. [1850: Dist. ferox.]

- ardeæ minutæ* Pontallié, 1853.—Dist. (Cladocalium).
- ardeæ nigræ* Viborg (1795), see Rud., 1809a, index.—1795: Dist. [1809: D. hians.]
- ardeæ stellaris* Rud., 1809a, 432; Fasc. *ardeæ* Gmelin, 1790, renamed.—1809: Dist. [1850: D. ferox.]
- arenula* Crep., 1825a, 53, t. h. *Fulica atra*.—1825: Dist.
- areolatum* Rud., 1809a, 50, Fasc. *platessæ* Mueller, 1788, renamed; t. h. *Pleuronectes platessa*.—1809: Dist. 1886: D. (Echinost.).
- aristotelis* Stoss., 1892, 14, D. *chilostomum* Mehlis of Ben., 1873b, t. h. *Rhinolophus hipposcrepis*, *Vespertilio murinus*, V. *desyncneme*, V. *daubentonii*, V. *emarginatus*, V. *mystacinus*, *Nannugo pipistrellus*.—1892: Dist. 1892: D. (*Brachylaimus*).
- armata* Sieb., 1837, 187, based on Wagner, 1834, 131.—1837: Cerc. 1855: Cerc. (*Xiphidiocerc.*). 1858: C. (*Acanthocephala*). [1858: Dist. *endolobum*.]
- armata* Rud., 1793a, 26; Fasc. *putorii* Gmelin, 1790a, renamed.—1793: Fasc. 1803: Dist. [1850: Dist. *trigonocephalum*.] [?1892: Echinost. *echinatum*.]
- armata minor* Ben., 1858, 98, t. h. *Lymnæus stagnalis*; Belgium.—1858: Cerc. [1859: Dist. *retusum*.]
- armatissimum* Linst., 1903, 280, t. h. *Iguana* sp.—1903: Dist.
- armatum* MacCallum, 1895, 401, see *isoporum armatum*.—1895: Dist. *isoporum*. [See also *Creadium*.]
- armatum* Mayer, 1841, 4, *Echinorhynchus* renamed.—1841: Monost.
- armatum* Leuck., 1835, 88, t. h. *Acipenser rostratus*.—1835: *Diclibothrium* (type). 1835: *Diclybothrium*. 1842: *Diplobothrium* (type). 1845: *Polyst.* (*Hexacotyle*).
- armatum* Molin., 1858, 130 (not Rud. 1793), t. h. *Phasianus gallus*; Patavii.—1858: Dist. [1896: Echinost. *echinatum*.]
- armatum* Mol., 1859, 291, t. h. *Conger conger*; Batavii.—1859: *Gasterost.*
- armatum* Fuhrmann, 1904, 61, t. h. *Rostrhamus sociabilis*.—1904: Echinost.
- armatum paludinx impuræ* Fil., 1857c, pl. 2, figs. 14–15.—1857: Dist.
- arrectum* Duj., 1845a, 403, t. h. “*lézard vert*,” Rennes.—1845: Dist. (*Brachycœlium*). 1895: D. (*Dicrocœlium*).
- arrectum* Duj., of Mol., 1859, 831, misdetermined.—1859: Dist. [1899: *Telorchis*.] 1904: *Telorchis*.
- ascidia* Rud., 1819a, 108, t. h. *Sparus boops* and *S. pagrus*; Arimini and Naples.—1819: Dist. 1903: D. (*Brachylaimus*).
- ascidia* Ben., 1873, 328, not Rud., 1819a; see *lagena* Brand., 1888, not Rud., 1819a.—1873: Dist. 1892: D. (*Dicrocœlium*). [1896: *Lecithodendrium*.] 1899: *Lecithodendrium* (type).
- ascidiæ* Dies., 1858e, 373, t. h. *Mentula marina*.—1858: *Aspidogaster*.
- ascidioides* Ben., 1873, 332, t. h. *Vesperugo noctula*.—1873: Dist. 1892: D. (*Brachylaimus*). 1899: *Lecithodendrium*. 1902: D. (*Lecithodendrium*). [1905: *Lec. chilostomum* Mehlis.]
- ascoidea* Leidy, 1877, 201, t. h. *Planorbis parvus*.—1877: Dist. (*Gymnocephala*).
- asper* Looss, 1899b, 601, separated from *variegatus*.—1899: *Hæmatolæchus*. 1905: *Pneumonœces*.
- asperum* Dies., 1838a, 189, t. h. *Tapirus americanus*; 1839, 236, Matogrosso and Cachœira do Bananeira, South America.—1838: *Amphist.* 1901: *Cladorchis*.
- asperum* Nitzsch, in Crep., 1849a, 71, t. h. *Anas fuligula*.—1849: Monost.
- asperum* Vaillant, 1863, 347, t. h. *Siren lacertina*.—1863: Monost. 1892: *Monostomulum*.
- asperum* Wright, 1879, 57, t. h. *Ardea minor*.—1879: Dist. 1892: Echinost. 1903: *Pegosomum*.
- asperus* Stoss., 1904, 1, t. h. *Plecotus auritus*; Grisignana, Istria.—1904: *Plagiorchis*.
- aspidophori* Ben., 1870, 34, t. h. *Aspidophorus europæus*.—1870: Dist.
- assula* Duj., 1845a, 398, t. h. *Coluber natrix*; Toulouse.—1845: Dist. (*Dicrocœlium*).
- asymphyloporum* Stoss., 1901, 96, t. h. *Trutta trutta*; Lake Plitvica, Croazia.—1901: *Allocreadium*.
- atomata* Bosc, 1802a, v. 1, 260.—1802: *Planaria*.
- atomum* Rud., 1802, 70, t. h. *Pleuronectes flesus*, stomach; Greifswald, Europe.—1802: Fasc. 1809: Dist. 1886: D. (*Dicrocœlium*). 1901: *Allocreadium*. 1905: *Podocotyle* (type).

- atriventre* Weinland, 1856, 24, t. h. *Physa heterostropha*.—1856: Dist.
- attenuata* Staff., 1902, 418, t. h. *Rana catesbiana*, *R. virescens*; Canada.—1902: Gorgoderina. 1905: Gorgoderina.
- attenuatum* Rud., 1809a, 328, t. h. *Scolopax gallinago*; Greifswald.—1809: Monost. (Monost.). [*Notocotyle verrucosum*.]
- attenuatum* Rud., 1814a, 103, Fasc. *longicollis* Abildg., renamed; later renamed Dist. naja Rud., 1819a, 377.—1814: Dist.
- attenuatum* Duj., 1845a, 392 [nec Rud.], t. h. *Turdus merula*; Rennes.—1845: Dist. (*Dicrocoelium*). 1900: *Dicrocoelium*. [1850: *D. macrourum*.]
- attenuatum* Bremser, MS., in Braun, 1901f, 563, t. h. *Rhynchops nigra*; Brazil.—1901: Dist. [1901: *Microlistrum spinetum*.]
- attenuatum* Dies., 1836d, 238, t. h. *Salmo paccu*; Caiçara, Brazil.—1836: Amphist.
- attenuatum* Linst., 1906, 11, t. h. *Buteo vulgaris*.—1906: Hemist.
- angusticaudum* Staff., 1904, 488, t. h. *Lota maculosa*, *Stitzostedion vitreum*; Canada.—1904: Mimodist. (type).
- angustus* Staff., 1905, Apr. 11, 690, for *angustum* 1900.—1905: Telorchis.
- aurantiaca* Haswell, 1900, 431, t. h. *Astacopsis* sp.—1900: Temnocephala.
- auricularis* Wedl, 1857, for *auriculatus* (*Gyrodactylus*).
- auriculata* Bosc, 1802a, v. 1, 261.—1802: Planaria.
- auriculatum* Wedl, 1857, 242, t. h. *Acipenser ruthenus*.—1857: Dist. 1886: D. (*Crossodera*). 1903: Bunodera.
- auriculatum* Wedl of Lint., 1898, 521.—1898: Dist. [1904: *Acrodactyla petalosa* (type of A.).]
- auriculatus* Nord., 1832, 108, t. h. *Cyprinus brama*.—1832: *Gyrodactylus*. 1850: *Dactylogyrus* (type).
- auriflavum* Mol., 1859, 287, t. h. *Ardea nycticorax*; Batavii.—1859: Diplost.
- auritum* Duj., 1845a, 370, t. h. *Strix flammea*; Rennes.—1845: Holost. 1850: Hemist.
- auxis* Tasch., 1879, 613, t. h. *Auxis rochei*; Naples.—1879: Didymozoon.
- axenos* Mont., 1898; or 1899, 83, t. h. unknown; Brazil.—1899: Temnocephala.
- baccigerum* Rud., 1819a, 108, t. h. *Atherina hepsetus*; Naples.—1819: Dist.
- bacillare* Mol., 1859, 834, t. h. *Centrolophus pompilius*; Batavii.—1859: Dist. 1886: D. (*Dicrocoelium*). [1899: *Creadiinae*, ? *Creadium*.]
- baculifer* Braun., 1900, 28, t. h. *Didelphys palmata*; Brazil.—1900: Rhopalias.
- baculum* Lint., 1905, 327, t. h. *Scomberomorus maculatus*; Beaufort, N. C.—1905: Gasterost.
- baculus* Dies., 1850a, 391, D. *mergi* 1819 renamed, t. h. *Mergus albellus*.—1850: Dist. 1860: Echinost.
- badia* Rathke, 1799, 147.—1799: Plan.
- baelzi* Cobbold, 1884g, 976, D. *pulmonale* Baelz renamed, t. h. *Homo*.—1884: Dist. [Paragonimus, type].
- bagri incapsulatum* Wedl, 1861, 479, t. h. *Bagrus* sp.—1861: Dist.
- baraldii* Sons., 1892, 91, t. h. *Zamenis viridiflavus* Lacep.—1892: Dist. 1895: D. (*Brachylaimus*).
- barbata* Linn., 1761, 505, t. h. *Loligo*; Sweden.—1761: Fasc. [1779: *Echinorhynchus*.] 1809: Dist. [1809: *Tetrabothriorhynchus migratorius*, cestode.] [1819: *Tetrarhynchus megabothrius*.] 1853: *Tetrabothriorhynchus*. [1905: *Tetrarhynchus*.]
- barbatum* Cohn, 1902k, 47, t. h. *Coryphæna*.—1902: *Lecithocladium*. 1907: *Dinurus*.
- baryurum* Staff., 1903, 822, t. h. *Necturus maculatus* Raf.; Canada.—1903: *Monocæcum* (type).
- bathycotyle* Fischder., 1901, 368, t. h. *Bos kerabau*; Ceylon.—1901: Paramphist.
- batis* Cerf., 1899a, 376, t. h. *Raja batis*.—1899: *Rajonchocotyle* (type).
- batryophoron* Ben., 1870, 51, for *botryophoron* (Dist.).
- belecephalum* Linst., 1873, 104, t. h. *Ardea cinerea*.—1873: Dist. 1892: Echinost. [*bellii*, reptile (*Bucephalus*).]
- bellinghamii* Cobbold, 1860a, 45, *falconum* Dies., renamed, t. h. *Falco nisus*, *F. rufus*.—1860: Holost.
- bellones* Otto, 1823, 300, t. h. *Bellone acus*; Naples.—1823: *Cyclocotyla* (type). 1837: *Cyclocotyle* (type). 1840: *Octobothrium*.

- belones* Nordl., 1840, 600, for *bellones* Otto (*Octobothrium*).
- belones* Crep., 1839, 291, for *bellones* Otto (*Cyclocotyla*).
- belones* Braun, 1893, 871, t. h. *Belones vulgaris*; based on Wedl, 1855, 382–383.—1893: Dist.
- belones* Abildg., 1794d, 59, t. h. *Belone acus*.—1794: *Axine* (type).
- belones vulgaris* Dies., 1855, 64, t. h. *Belone vulgaris*; Triest; based on Wedl, 1855, 382–383.—1855: Dist.
- benedeni* St.-Remy, 1898, 566, for van benedeni.—1898: *Dactylogyrus*.
- benedeni* Stoss., 1898, 51, for benedenii.—1898: Dist. 1902: *Haploporus* (type).
- benedeni* Mont., 1893, see benedenii.—1904: *Nematobothrium* (*Didymozoon*).
- benedeni* St.-Remy, 1898, 566, for van benedenii (*Tetraonchus*).
- benedenii* Stoss., 1887, 95, t. h. *Mugil chelo*.—1887: Dist. 1902: *Haploporus* (type).
- benedenii* Mont., 1893, 137, t. h. *Orthagoriscus*.—1893: *Didymozoon*.
- bergense* Olss., 1868, 43, t. h. *Anguilla vulgaris*.—1868: Dist. 1886: *D. (Brachylaimus)* [1905: *Lecithaster gibbosus*.]
- bergi* Par., 1900, 193, t. h. *Raja planata*; Montevideo.—1900: Fasc.
- beroës* Will, 1844, 343, t. h. *Beroës rufescens*; Triest.—1844: Dist. [1850: *D. papillosum*.]
- betencourti* Mont., 1892b, 127; 1893, 33, t. h. *Scyllium*; Boulogne.—1893: Dist. 1899: *Pleurogenes*.
- bicornis* Bosc., 1802a, v. 1, 257.—1802: Plan.
- bicoronatum* Stoss., 1883, 113, t. h. *Ciconia nigra*.—1883: Dist. 1886: *D. (Echinost.)*. 1901: *Stephanochasmus*. 1902: *Echinost*.
- bifasciata* Haswell, see Mont., 1889, 2.—1889: *Temnocephala*.
- bifurcatum* Wedl, 1861, 477, t. h. *Crocodilus vulgaris*; Egypt.—1861: Dist. 1888: *Diplost*.
- bifurcum* Braun, 1899, 631, t. h. *Flussschildkröten*.—1899: Dist. 1901: *Telorchis*.
- bijugum* Braun, 1901g, 896, t. h. *Himantopus melanopterus*; Brazil.—1901: *Stomylorema*.
- bijugum* Miescher, (1838a), pp. 28, 1 pl., t. h. *Fringillidæ*.—1838: *Monost*. [1840] *Monost. faba*.]
- [*bilamellatæ*, see sub Fasc.]
- bilharzii* Herff, 1894, 415, for *hæmatobium*.—1894: Dist. [Schistosoma.]
- bilineata* Haldeman, 1840a, 3, t. h. *Limnea catascopium*; Camden on Delaware.—1840: *Cerc*. 1850: *Histrionella*.
- biliosum* Leidy, 1858, 111, in a fish; America.—1858: Dist.
- bilis* Braun, 1790, 61, t. h. *Falco melanaëtus*; Germany.—1790: Plan. 1790: Fasc. 1803: Dist. [1809: Dist. *crassiusculum*.] 1898: *Campula*.
- billis* Bosc, 1802a, v. 1, 269, for *bilis* 1790 (*Fasciola*).
- bilobum* Rud., 1819a, 114, t. h. *Tantalus falcinellus*; Mus. Vien.—1819: Dist. (*Echinost.*) 1860: *Echinost*.
- bilobus* Looss, 1901, 569, t. h. *Chelone mydas*; Egypt.—1901: *Pleurogonius*.
- binodis* Mueller, 1776, 224, in intest. of fish.—1776: Fasc. 1803: Dist.
- biparasiticum* Goto, 1894a, 251, t. h. *Parapetalus*, *Thynnus albacora*; Japan.—1894: *Trist*.
- bipartita* Sons., 1897, 253, t. h. *Limnæa palustris*; Pisa.—1897: *Cerc*.
- bipartitum* Wedl, 1855, 378, t. h. *Thynnus vulgaris*.—1855: *Monost*. 1860: *Wedlia* (type). [1878: *Didymozoon* (type).] 1893: Dist. 1902: *Didymost*. (type).
- birói* Mont., 1905, 21, t. h. *Sesarma gracilipes* A. Edw.; Sattelberg, New Guinea.—1905: *Craniocephala* (type).
- blainvillei* Cobbold, 1860a, 39, *M. delphini* Blainv., renamed.—1860: *Monost*.
- blanchardi*, Stoss., 1898, 61, t. h. *Labrax lupus*; Triest.—1898: *Gasterost*.
- blanchardi* Tasch., 1878, 564, for *blanchardii* (*Trist*.).
- blanchardi* Haswell, 1893f, 153, corrigendum, t. h. *Engæus fossor*; Grippsland, Victoria, Australia.—[1893: *Actinodactylus*.] 1893: *Actinodactylella*.
- blanchardii* Cobbold, 1860a, 8, *Brachylæmus erinacei* Bl., 1847, renamed, t. h. *Erinaceus europæus*; Paris.—1860: Dist. [1892: *D. linguæforme*.]

- blanchardii* Dies., 1850a. 430. *T. squali* E. Bl., 1847, renamed, t. h. *Squalus* sp.; New Zealand.—1850: Trist.
- blennii* Mueller. 1776, 224. t. h. *Blennius viviparus*.—1776: Fasc. 1803: Dist. [1809: D. *divergens*.]
- blicca* Linst., 1877, 185, t. h. *Blicca bjoerkna*.—1877: Dist.
- bolodes* Braun, 1902b. 11, t. h. *Fulica atra*; Rossitten.—1902: Dist.
- bombyna* Zed., 1800a. xvi, t. h. *Rana bombyna*, lungs; Europe.—1800: Monost. [1894: Dist. *variegatum*.]
- bomfordi* Montgomery, 1906, 143, t. h. *Bos indicus*; India.—1906: *Schistosoma*.
- bonnieri* Mont., 1893, 40, t. h. *Trigla gurnardus*; Wimereux.—1893: Dist. 1899: Liopyge (type). [1902: *Liocerca* (type).]
- borealis* Sons., 1890, 177, misprint for *borealis* (*Onchocotyle*).
- borealis* Olss., 1893, 7, t. h. *Thymallus vulgaris*, *Coregonus lavaretus*; Scandinavia.—1893: *Dactylodiscus* (type). 1905: *Tetraonchus*.
- borealis* Ben., 1853l. 59, t. h. *Scimnus glacialis*.—1853: *Onchocotyle*. 1857: Polyst. 1899: *Squalonchocotyle* (type).
- boschadis* Schrank, 1790, 122.—1790: *Festuc*.
- boschadis* Schrank, 1803, 209, t. h. *Anas boschas sylvestris*, A. b. dom.—1803: Fasc.
- bosci* Cobbold, 1859d. 364, includes Fasc. *colubri* Bosc, Dist. *colubri americani* Rud., t. h. *Coluber* sp.—1859: Dist. 1895: D. (*Dicrocoelium*). [1905: *Zeugorchis*.]
- boscii* Cobbold, 1879, 455, for *bosci*.—1879: Dist. 1895: D. (*Dicrocoelium*).
- bothriophoron* Braun, 1892f. 49, t. h. *Bos indicus*; Madagascar.—1892: Amphist. 1901: *Parnaphist*.
- bothriophorum* Stiles, 1898a. 24, for *bothriophoron* (*Amphist*).
- bothryophoron* Braun, 1892a, 700, for *botryophoron* (Dist.).
- bothryophorus* Olss., of Looss, 1899b, 728, renamed *confusus* 1905.—1899: *Hemiurus*. 1901: *Lecithaster* (type).
- botryophoron* Olss., 1868, 42, t. h. *Cyclopterus*.—1868: Dist. 1886: D. (*Brachylaimus*). 1905: *Lecithophyllum* (type).
- botryophorum* Odhn., 1905, 359, for *botryophoron* Olss., 1868.—1905: *Lecithophyllum* (type).
- botryophorus* Odhn., 1905, 357, for *bothryophorus* of Looss, 1899 (*Hemiurus*).—1905: *Lecithaster*. [L. *confusus*.]
- boum* Gmelin, 1790a, 354.—1790: Fasc. *hepatica*.
- bovis* Sons., 1876, 84, t. h. *Bos taurus*; Egypt.—1876: *Bilharzia*. 1893: *Gynæcophorus*. 1895: *Schistosoma*.
- brachycoelia* Luehe, 1901d. 51, t. h. *Box salpa*; Genua.—1901: *Mesometra*.
- brachycoelium* Cohn, 1903, 39, host not given.—1903: *Amphist*.
- brachydelphium* Heymann, 1905, 81, t. h. *Dermatemys mavi*.—1905: *Patagium* (type).
- brachysoma* Villot, 1878, 27, t. h. *Anthura gracilis* Leach.—1878: Cerc. [1888: Dist. *brachysoma*.]
- brachysomum* Crep., 1837a. 314, t. h. *Hæmatopus ostralegus*.—1837: Dist. 1892: D. (*Brachycoelium*). 1899: *Levinsenia* (type). 1901: *Levinseniella* (type).
- brachyura* Fil., 1837a, 337, t. h. *Planorbis submarginatus*; Pavia. See next entry.—1837: Cerc.
- brachyura* Dies., 1850a. 296, Dist. *polymorphum* Fil., 1837a. 337, renamed; t. h. *Planorbis submarginatus*; Ticini.—1850: Cerc. 1855: Cerc. (*Eucerc*). 1858: C. (*Acanthocephala*).
- brachyura* Lespés, 1857b. 117, t. h. *Trochus cynereus*.—1857: Cerc. [1858: C. (*Acanthocephala*) *pachycerca*.]
- brachyurum* Linst., 1905, 418, 422, misprint for *baryurum* (*Monocæcum*).
- bramæ* Mueller. 1776, 224, t. h. *Cyprinus brama*.—1776: Fasc. 1803: Dist. [1809: Dist. *globiporum*.] [*Sphærost*.]
- bramæ* Par. & Perugia, 1896, 1, t. h. *Brama rayi*; Genova.—1896: *Octobothrium*. 1898: *Octocotyle*.
- branchialis* Vallot, 1840.—1840: *Astacobdella* (type).
- branchialis* Darr, 1902, 644, t. h. mackerel; German East Africa.—1902: *Bathycotyle* (type).

- braunii* Cobbold, 1860a, 43, *M. murænulæ* renamed, t. h. *Coregonus murænula*.—1860: Monost.
- brasilianum* Stoss., 1902b, 15, t. h. *Scolopax flaviceps*; Brazil.—1902: *Cyclocœlum*.
- brevicaudata* Piana, 1882, teste Parona, 1894, 161, t. h. *Helix carthusiana*; Reggio Em.—1882: Cerc.
- brevicaudatum* Nord., 1832a, 52, t. h. *Barbus communis*; Berlin.—1832: Holost. 1850: Diplost.
- brevicollis* Crep., 1829, 54, t. h. *Hæmatopus ostralegus*; Greifswald.—1829: Dist. 1892: D. (*Dicrocœlium*). 1902: Psilost.
- brevicornis* Mont., 1889, 1, t. h. *Hydromedusa maximiliani*, *Hydraspis radiolata*; Brazil.—1889: *Temnocephala*.
- breviplexus* Staff., 1902, 901, t. h. *Rana catesbiana*, *R. virescens*; Canada.—1902: *Hæmatolœchus*. 1905: *Pneumonœces*.
- brunnea* Mueller, 1774, 54.—1774: Fasc. 1776: *Planaria*.
- brunnea* Dies., 1850a, 296, Cerc. III Baer, renamed; t. h. *Limnæus stagnalis*; Regiomontii.—1850: Cerc. 1855: C. (*Eucerc.*). 1858: C. (*Gymnocephala*). [1858: Dist. *echinata*.]
- brunnea* var. Dies., see Erc., 1881e, 12.—[1881: Cerc. *alba*.]
- brusinae* Stoss., 1889, 25, t. h. *Oblata melanura*; Triest.—1889: Dist. 1899: *Pleurogenes*. [1904: *Diptherostomum* (type).]
- brusinae* Looss, 1901, 399, for *brusinae* 1889.—1901: Dist. 1903: D. (*Brachycæcum*). [1904: *Diptherost.* (type).]
- buccatus* Nicoll, 1907, 72, t. h. *Hippoglossus vulgaris*; Scotland.—1907: *Stephanochasmus*.
- buccini* Fil., 1855b, 23.—1855: Dist.
- buccini mutabilis* Fil., 1855b, 17, t. h. *Buccinum mutabilis*; Gulf of Genoa.—1855: Dist. 1855: Cerc. 1858: C. (*Acanthocephala*).
- bucephalus* Erc., 1881e, 40, t. h. *Unio pictorum*.—1881: Cerc.
- buchholzii* Braun, 1889a, 320, lapsus for “Fasc. hepatica, ovata plana, Buchholzii,” see lanceatum.—1889: Fasc.
- bufonis* Linst., 1877, 185, t. h. *Bufo vulgaris*.—1877: Dist.
- bulbosum* Brand., 1888a, 67, t. h. *Geronticus albicollis*, *Naucleus furcatus*; Mus. Vien.—1888: Holost.
- bumpusii* Lint., 1900a, 267, t. h. *Dasyatis centrura*; Woods Hole, Mass.—1900: *Epibdella*. 1903: *Phylline*.
- bursæ fabricius* Podwysoski, 1890, 157, t. h. *Gallus domesticus*.—1890: Dist.
- bursarium* Nitzsch, in Giebel, 1857, 265, t. h. *Falco peregrinus*.—1857: Holost.
- bursicola* Crep., 1837, 310, t. h. *Ardea cinerea*.—1837: Dist. [*Echinost. cloacinum*.]
- bursicola* Odhn., 1900, 14, t. h. *Somateria mollissima*; Sweden.—1900: *Gymnophallus*.
- bursicola* Looss, 1899b, 694, t. h. *Milvus parasiticus*, *Falco tinnunculus*; Africa. See also africanum 1901.—1899: *Echinost.*
- bursigerum* Brand., 1888, 65, t. h. *Larus ridibundus*; Mus. Vien.—1888: Holost.
- buski* Bl., 1888a, 622, for *buskii* q. v.—1888: Dist. 1888: *Dicrocœlium*. 1893: D. (*Dicrocœlium*). 1895: Dist. 1895: *Opisthorchis*. 1902: *Fasciolopsis*.
- buskii* Lankester, 1857, 437, t. h. *Homo*; Asia.—1857: Dist. 1858: *Dicrocœlium*. 1895: *Opisthorchis*. 1901: *Fasciolopsis* [type].
- buteonis* Gmelin, 1790a, 3054, t. h. *Falco buteo*; Europe.—1790: Fasc. [1782: *Plan.*]. 1803: Dist.
- cacozelus* Nicoll, 1907, 72, t. h. *Pleuronectes limanda*, *Hippoglossus vulgaris*.—1907: *Derogenes*.
- caduceus* Odhn., 1902, 26, t. h. *Krokodil*; Sudan.—1902: *Oistosomum* (type).
- caducus* Looss, 1901e, 603, t. h. *Gadus minutus*, *Lophius piscatorius*; apparently Triest.—1901: *Stephanochasmus*.
- cæca* Haswell, 1900b, 432, t. h. *Phreatoicopsis* n. sp.; Victoria.—1900: *Temnocephala*. [*cæruleum* Sluiter, 1898, 4, a tunicate (Dist.).]
- cahirinum* Looss, 1896, 119, t. h. *Bagrus bayad*; Cairo, Egypt.—1896: Dist. 1899: *Haplorchis*.
- calceolus* Mol., 1858, 129, t. h. *Conger conger*; Patavii.—1858: Dist. 1886: D. (*Dicrocœlium*).

- calceostoma* Wagener, 1857, 99, t. h. *Sciæna aquila*.—1857: *Dactylogyrus*. [1858: *Calceost. elegans*, type.] 1907: *Calceost.* type.
- calicophorum* Fischder., 1901, 370, t. h. *Bos taurus*; East Africa, Capland, Queensland, China.—1901: *Paramphist*.
- calidris* Rud., 1819a, 120, t. h. *Scolopax calidris*.—1819: *Dist.* [1850: *Monost. mutabile*.] [1886: *D. brachysomum*.]
- caligarum* Tasch., 1878, 564, for *caligorum* (*Udonella*).
- caligi* Kroyer, ———. ———: *Phylline*. 1858: *Udonella*. [1858: *Udonella caligarum*.]
- caligi* Ben., 1858a, 189, for *caligorum*.
- caligorum* Johnston, 1835, 497, t. h. *Caligus* on *Hippoglossus vulgaris*.—1835: *Udonella* (type).
- callionymi* Ben., 1870, 53, t. h. *Callionymus dracunculus*.—1870: *Dist.*
- calyptrocotyle* Mont., 1891, 110, t. h. *Beroë ovata*.—1891: *Dist.* 1893: *D. (Accacœlium)*. [1900: *Accacœlium*.] 1902: *Orophocotyle*.
- campanulatum* Rivolta, 1884, 27, for *campanulatum* (*Dist.*).
- campanula* Duj., 1845a, 435, t. h. *Esox lucius*; Rennes.—1845: *Dist.* (*Crossodera*). [1850: *D. nodulosum*.] 1860: *Crossodera*. [1858: *Gasterost. fimbriatum*.] 1886: *D. (Echinost.)*.
- campanula* Linst., 1886a, 125, for *campula* Cobbold.—1886: *Dist.* [1892: *D. oblongum*.]
- campanulatum* Erc., 1874, 432, t. h. *Canis familiaris*.—1874: *Dist.*
- campula* Cobbold, 1876, 40, *oblonga* (*Campula*) renamed.—1876: *Dist.* 1899: *Metorchis*. 1899: *Opisthorchis*.
- canaliculatum* Rud., 1819a, 676, t. h. *Sterna* sp., *galericulata* teste Dies.; Brazil.—1819: *Dist.* 1902: *Bilharziella*.
- canaliculatum* Mehlis in Crep., 1846, 138, t. h. *Colymbus cristatus*.—1846: *Dist.*
- cancris locustæ* Rud., 1810a, 288.—1878: *Trematodum*.
- candida* Mueller (or Abildg.), 1806a, v. 4, 32.—1806: *Strigea*. [1850: *Holost. erraticum*.]
- candida* Mueller, 1774, 71, in littore Grœnlandiæ sub lapidibus.—1774: *Fasc.* 1776: *Planaria*. ———: *Tetrastemma*.
- canicula* Cerf., 1899a, 374, *Onchocotyle appendiculata* Kuhn of Stoss., 1877, renamed; t. h. *Scyllium canicula*.—1899: *Acanthonchocotyle*.
- canis* Cerf., 1899a, 375, t. h. *Galeus canis*; Roscoff.—1899: *Squalonchocotyle*. 1900: *Onchocotyle*.
- canthari* Ben. & Hesse, 1863, 113; 1864, 113, t. h. *Cantharus griseus*.—1863: *Microcotyle*.
- caouanæ* Koll. in Braun, 1901b, 23, t. h. *Thalassochelys caouana*, int.—1901: *Monost.* [1901: *Enodiotrema megachondrum*.]
- capense* Looss, 1902m, 855, “*Anaporrhutum ricchiardii Lopez*” of Ofenh., renamed.—1902: *Probolitrema*.
- capense* Harley, 1864a, 55, t. h. *Homo*; Cape of Good Hope.—1864: *Dist.* 1864: *Bilharzia*.
- capitata* Bosc, 1802a, v. 1, 261; Baltic Sea.—1802: *Planaria*.
- capitata* Mueller, 1774, 70.—1774: *Fasc.* 1776: *Planaria*.
- capitellatum* Rud., 1819a, 83, 343, t. h. *Sparus salpa*; Naples.—1819: *Monost.* (*Monost.*).
- capitellatum* Rud., 1819a, 99, t. h. *Uranoscopus scaber*; Arimini and Naples.—1819: *Dist.* 1900: *Anisocœlium* (type).
- capriciosa* Cuénot, 1892, in 1–23, t. h. *Synapta inhærens* teste Braun, 1893b, 183.—1893: *Cerc.*
- capsulare* Dies., 1858e, 355, based on Wedl, 1857, v. 26, 247, pl. 1, fig. 8, t. h. *Ardea purpurea*, *A. nycticorax*, *A. cinerea*, *Gallinula crex*, *Podiceps nigricollis*.—1858: *Dist.* 1892: *Agamodist.*
- capsularia* Sons., 1892, 7 Oct., 144, t. h. *Cleopatra bulimoides*; Cairo, Egypt.—1892: *Cerc.*
- capyristes* Klein, 1905, 60, t. h. *Rana hexadactyla*.—1905: *Pneumonœces*.
- carbonarii* Cerf., 1895h, 929.—1895: *Dactylocotyle*.
- carinariæ* delle Chiaje, (1841a), 139.—1841: *Dist.*

- carinatum* Zed., 1803a, 217, cyprinaceum Zed., 1800, renamed.—1803: Dist. [1809: D. globiporum, pars D. inflexum.]
- carnea* Rathke, 1799, 83.—1799: Planaria.
- carnosa* Hass., 1891a, 208, in Bos taurus; U. S. A.—1891: Fasc. 1892: Dist. 1892: D. (Fasc.). [See americanum.]
- carnosus* Rud., 1819a, 93, t. h. Sparus dentex; Naples.—1819: Dist. 1886: D. (Brachylaimus).
- carolinæ* Stoss., 1889, 26, t. h. Alausa finta; Triest.—1889: Dist. [1891: Apoblema ocreatum.] 1899: Pronopyge. [1899: Pronopyge ocreata, type.]
- caryocatactis* Zed., 1800a, 163, t. h. Corvus caryocatactes; Europe.—1800: Dist. [1850: D. caudale.] [1902: Harmost. caudale.]
- caryophyllacea* Rud., 1810a, 353 for caryophyllina (Festucaria).
- caryophyllata* Bory de St. Vincent, 1823a, 354, in infusions de chènevis.—1823: Cerc.
- caryophyllina* Rud., 1802, 66, t. h. Gasterosteus aculeatus; Greifswald.—1802: Festuc. 1803: Monost. 1809: M. (Hypost.). 1828: Hypost. (probably type). 1845: Monost.
- caryophyllum* Dies., 1850a, 317, t. h. Falco pileatus; Rio Parana, Brazil.—1850: Eustemma (type). [1888: Holost. eustemma.]
- caryophyllum* Mont., 1892, 717, for caryophyllum (Monost.).
- catellina* Mueller, 1786, 130, in aqua fossarum, ubi Lemna.—1786: Cerc. 1815: Furcocerca. 1827: Dicranophorus.
- catellus* Mueller, 1773, 65, in aqua [etc., see p. 124.].—1773: Cerc. 1815: Furcocerca. 1827: Dicranophorus.
- catervarium* Looss, 1896, 118, t. h. Alosa finta; Cairo, Egypt.—1896: Dist.
- cattoi* R. Bl., in Catto, 1905, 70; 1905, 11, t. h. Homo; China.—1905: Schistosoma. [S. japonicum.]
- caudale* Rud., 1809a, 382, caryocatactis Zed., 1800, renamed, t. h. Corvus caryocatactes.—1809: Dist. 1901: Harmost.
- caudale* from Pyrrhocorax alpinus.—1809: Dist. [1902: Harmost. mesostomum.]
- caudale* of Mueller, 1897, 16, in Coracias garrula.—1897: Dist. [1902: Urogonimus macrostomus.]
- caudata* Goto, 1894, 186, t. h. Sebastes sp.; Japan.—1894: Microcotyle.
- caudata* Bosc, 1802a, 271, t. h. dorade.—1802: Fasc. [1809: Dist. coryphænæ.] [1819, 1850: D. tornatum.] 1859: Dist.
- caudata* Mueller, 1774, 70.—1774: Fasc. 1787: Planaria.
- caudatum* Polonio (1859), t. h. Natrix torquata, Tropidonotus viperinus; Padua.—1859: Dist. 1896: D. (Opisthorchis).
- caudatum* Linst., 1873, 103, t. h. Erinaceus europæus.—1873: Dist. 1892: D. (Brachylaimus.) 1899: Heterolope. [1899: D. leptostomum.]
- caudiporum* Rud., 1819a, 96, t. h. Zeus faber; Arimini.—1819: Dist. 1845: D. (Apoblema). 1901: Lecithochirium. 1907: Synaptobothrium.
- cavatica* Fries.—Planaria.
- caviæ* Bosc, 1811, 269.—1811: Tetragulus. 1829: Linguatula.
- caviæ* Sons., 1890, 100, t. h. Cavia cobaya.—1890: Dist. 1893: Fasc. hepatica.
- cellulosa* Looss, 1896b, 227, t. h. Melania tuberculata Bourg.; near Alexandria, Egypt.—1896: Cerc.
- centra appendiculatum* Leidy, 1904a, 277, misprint for centrappendiculatum (Dist.).
- centrappendiculatum* Leidy, 1891a, 416, appendiculatum Leidy, 1877, 202 [not Rud.] renamed.—1891: Dist.
- centrodes* Braun, 1901g, 941, t. h. Tinamus variegatus; Brazil.—1901: Harmost.
- cephala* Risso, 1826, 262, t. h. Tetraodon luna; Europe.—1826: Trist. [1898: T. molæ.]
- cephala* Kroyer, 1852–53a, 745, for cephalæ (Trist.).
- cercatum* Ben., 1858a, 179 [possibly lapsus for —? —].—1858: Monost.
- cercatum* Mont., 1893, 40, host and loc. unknown.—1893: Urogonimus. 1893: Dist.
- cercatus* Mont., 1893, 162, see cercatum (Urogonimus).
- cercopithecii* Cobbold, 1861e, 119, t. h. Cercopithecus fuliginosus.—1861: Cerc.
- cerebrale* Yamagiwa, 1890, 457, t. h. Homo; see westermanii.—1890: Dist. [Paragonimus westermanii.]

- cervi* Schrank, 1790, 123.—1790: Fasc. [1790: Festucaria.] 1893: Strigea. 1898: Amphist. 1901: Paramphist. (type).
- cervi* Zed., (1790), 65, t. h. Hirsch.—1790: Festucaria. See *cervi* Schrank.
- cervi* Gmelin, 1790a, 3054.—1790: Fasc. hepatica.
- cervi* Cobbold, 1861e, 119, t. h. *Cervus axis*.—1861: Cerc.
- cesti veneris* Vogt, —, 299, t. h. *Cestum veneris*.—Dist.
- cecticillus* Mol., 1858, 131, t. h. *Lophius piscatorius*; Patavii.—1858: Dist. 1886: D. (Echinost.). 1893: Echinost. 1899: Anoikost. 1899: Stephanost. (type). [1901: Stephanochasmus, type.]
- cestoides* E. Ben., 1870, 17, t. h. *Raja batis*.—1870: Dist.
- cylindraceum* Looss, 1894a, 37, misprint for cylindraceum (Dist.).
- characis* Stoss., 1886, 26, t. h. *Charax puntazzo*; Triest.—1886: Dist. (*Brachylaimus*).
- chefrenianum* Looss, 1896, 73, t. h. *Rhinopoma microphyllum*; Ghizeh.—1896: Dist. 1899: *Lecithodendrium*.
- chefresianum* Looss, 1896, pl. 5, misprint for *chefrenianum* (Dist.).
- chelonix atræ* Braun, 1899e, 629, see *pachyderma*.—1899: Dist.
- chelonix imbricatæ* Dies., 1858e, 358, based on Bellingham, 1844, 340, t. h. *Chelonia imbricata*; Ireland.—1858: Amphist.
- chelydræ* Staff., 1900, 406, t. h. *Chelydra serpentina*.—1900: Dist. 1905: *Auridist.* (type).
- chelydræ* MacCallum, 1902, 632, t. h. *Chelydra serpentina*; Dunnville, Ontario.—1902: *Heronimus* (type).
- chiajæ* Tasch., 1879, 251, for *chiajei* (*Solenocotyle*).
- chiajæ* Mont., 1888, 89, for *chiajei* (*Solenocotyle*).
- chiajei* Dies., 1850a, 420, *Polyst. loliginis Chiaje*, 1823, renamed; t. h. *Loligo vulgaris*; Naples.—1850: *Solenocotyle* (type).
- chilensis* Gay, 1836, see next entry.—1836: *Branchiobdella*. 1850: *Astacobdella*.
- chilensis* Moquin-Tandon, teste E. Bl., 1849, 51, t. h. *cangregos*; Chili.—*Branchiobdella*. 1849: *Temnocephala*.
- chili* Osborn, 1903, 315, t. h. *Micropterus dolomieu*; Chautauqua, N. Y.—1903: *Cryptogonimus* (type).
- chilinsis* Mont., 1899, 113, for *chilensis* (*Temnocephala*).
- chilostomum* Mehliis, 1831, 186, t. h. *Vespertilio murinus* et al.—1831: Dist. 1892: D. (*Dicrocoelium*). 1900: *Lecithodendrium*.
- chilostomum* Ben., 1873, 27.—1873: Dist. [1892: D. *aristotelis*.]
- chimæræ* Ariola, 1899a, 8, t. h. *Chimæra monstrosa*; Genova, Italy.—1899: *Agamodist.*
- chimæræ* Kroyer, 1852–53a, 813, t. h. *Chimæra monstrosa* L.—1853: *Crobylophorus* (type).
- chinense* Cobbold, 1876, 97, D. *sinense* renamed, t. h. *Homo*.—1876: Dist.
- chiri* Goto, 1894, 193, t. h. *Chirus hexagrammus*; Japan.—1894: *Microcotyle*.
- chloropodis* Zed., 1800a, xvii, 164, t. h. *Fulica chloropus*; Europe.—1800: Dist. [Dist. *uncinatum*.]
- chlorotica* Dies., 1850a, 296, Cerc. II Baer renamed; t. h. *Paludina vivipara*; Regio. montii.—1850: Cerc. 1855: C. (*Eucerc.*). 1858: C. (*Acanthocephala*).
- choledochum* Linst., 1883a, 306, t. h. *Anas* sp.—1883: Dist. 1892: D. (*Dicrocoelium*). 1898: *Opisthorchis*.
- choledochus* Odhn., 1900, 14, t. h. *Vulpanser tadorna*.—1900: *Gymnophallus*.
- chordale* Burckhardt, 1891a, 62, t. h. *Protopterus annectens*.—1891: Amphist. [1892: *Tetracotyle*, *Holostomidae*.]
- chrysophrii* Cerf., 1898a, 303, for *chrysophryi* (*Choricotyle*).
- chrysophri* St.-Remy, 1898, 555, for *chrysophryi* (*Diclidophora*).
- chrysaëti* Rud., 1819a, 119, t. h. *Falco chrysaëtus*.—1819: Dist. [1892: D. *crassiusculum*.]
- chrysophris* Mont., 1888, 11, 16, for *chrysophryi* (*Choricotyle*).
- chrysophryi* Ben. & Hesse, 1863; 1864, 109, t. h. *Chrysophrys aurata*.—1864: *Choricotyle* (type). 1890: *Octobothrium*. 1890: *Microcotyle*. 1895: *Diclidophora*.
- crystallinum* Hannover, 1864a, 3, for *crystallinum* 1819 (Dist.).
- cignoides* Mont., 1888, 40, 80, for *cygnoides* (Dist.).

- ciliata* Mueller, 1774, 55, free form.—1774: Fasc. 1776: Planaria.
- cimbiforme* Mont., 1896, 165 for cymbiiforme (Dist.).
- cincta* Rud., 1803, 31, t. h. *Tringa vanellus*.—1803: Fasc. 1809: Dist. 1809: D. (Echinost.). 1860: Echinost.
- cinctum* Brand., 1888a, 67, t. h. *Ardea* sp.; Brazil.—1888: Holost.
- [*cinerea* (anatomical term) Fasc.]
- circularis* Linst., 1904, 493; or 1894, 17, t. h. *Acipenser ruthenus*.—1904: Erpocotyle.
- [*circumvallata* Sluiter, 1900. Dist. (tunicate).]
- cirrata* Rud., 1802, 66, of Rud., 1808, xxv, for *F. cirrhata*.—1802: Fasc. [cirrhata]. 1809: Dist. 1845: D. (*Brachylaemus*). 1899: *Lepoderma*. 1899: *Plagiorchis*.
- cirrhata* Rud., 1802, 66, t. h. *Corvus frugilegus*; Greifswald, June—1802: Fasc. 1855: Dist. 1899: *Lepoderma*.
- cirrigerum* Nord., 1840, 616, for *cirrigerum* (Dist.).
- cirrigerum* Baer, 1827, 553, t. h. *Astacus fluviatilis*.—1827: Dist. [1850: D. *isostomum*.]
- cirosum* Rud., 1808a, 296, for *cirratum* (Dist.).
- cladocalium* Dies., 1858, 354, t. h. *Ardea minuta*; based on Pontallié, 1853, 103.—1858: Dist.
- clathratum* Deslongchamps, in Lamouroux, 1824, 563, t. h. *Cypselus apus*.—1824: Dist. 1845: D. (*Dicrocoelium*). 1899: *Dicrocoelium*. [1899: *Lyperosomum*.]
- clathratum* Deslongchamps, of Olsson, 1876, 24, renamed *olssoni* 1900.—1876: Dist. [1900: *Dicrocoelium olssoni*.]
- clathratum* Dies., 1850a, 308, t. h. *Lutra brasiliensis*; Matogrosso.—1850: Hemist.
- clausi* Mont., 1888, 79 for *clausii* (Cerc.).
- clausii* Mont., 1888, 72.—1888: Cerc.
- clava* Dies., 1850a, 356, hosts *Eunectes scytale*, *Hydroscopus plumbeus*, *Coluber flaviventris*, *Clodia fasciata*; Brazil.—1850: Dist. 1899: *Telorchis* (type).
- clavata* Menzies, 1791, 187, t. h. *Scomber pelamys*; Pacific.—1791: Fasc. 1808: Dist. 1828: *Hirudinella* (type).
- clavatum* Steenstrup, 1842, 59, under skin of frogs, *Rana temporaria*, [for 1842: *Amphist. subclavatum*?].
- clavatum* Nord., 1832, 42, t. h. *Perca cernua*, *P. fluviatilis*, *P. lucioperca*.—1832: Diplost. 1850: *Tylodelphys* (type).
- claviforme* Brand., 1888, 247, t. h. *Tringa alpina*.—1888: Dist. 1899: *Lecithodendrium*. 1892: D. (*Brachycoelium*). 1907: *Spelotrema*.
- clavigerum* Zed., 1803a, 199, *Festuc. strigis* 1788, renamed; in Strix.—1803: *Amphist.* [1809: *A. macrocephalum*.]
- clavigerum* Rud., 1819a, 103, t. h. *Bufo viridis*, at Berlin; *B. cinereus*, *Rana temporaria*, *R. esculenta*, *Hyla arborea*.—1819: Dist. 1845: D. (*Brachycoelium*). 1899: *Pleurogenes* (type).
- calvigerum* Rud. of Duj., 1845a, renamed *confusus*, 1894.—1845: Dist. (*Brachycoelium*). 1899: *Prosotocus*, type.
- clavus* Mol., 1858, 128, t. h. *Gadus merluccius*; Patavii.—1858: Holost.
- cloacinum* Braun, 1901, 259, *bursicola* Crep., renamed.—1901: Echinost.
- clupeæ* Ben., 1870, 67, t. h. *Clupea sprattus*; Belgium.—1870: *Gasterost.*
- clupeæ* Schrank, 1788, 20, t. h. *rheinische Mayfische*.—1788: Fasc. 1803: Dist.
- clupeæ rhenanæ* Rud., 1809a, 437, includes Fasc. *alosæ* Hermann, 1783, *F. clupeæ* Schrank, 1788.—1809: Dist.
- cobboldi* Fischder., 1901, 372, for *cobboldii* (*Gastrothylax*).
- cobboldi* Montgomery, 1906, Feb. 12, 21, t. h. *Equus caballus*; India.—1906: *Pseudodiscus*.
- cobboldii* J. Poir., 1883, 77, t. h. *Palonia frontalis*; Java.—1883: *Gastrothylax*.
- cobitidis* Linst., 1890d, 179, t. h. *Cobitis barbatula*.—1890: Diplost.
- coccineum* Cuv., 1817, 42, t. h. *la môle*, *le xiphias*, etc.—1817: Trist. (type). 1820: *Phylline*. 1828: *Capsala*.
- coccineum* of Rud., 1819a, 123, in *Orthogoriscus molæ*, *Xiphias gladius*, renamed *rudolphianum*, 1850.—1819: Trist.
- cochlea* Wedl, 1857, 258, t. h. *Esox lucius*.—1857: *Gyrodactylus*. [1888: *Tetraonchus monenteron*.] 1890: *Dactylogyrus*.

- cochlear* Dies., 1858, 38, t. h. *Scomber scombrus*.—1858: *Grubea* (type).
- cochlear* Dies., 1850a, 357, *D. cochleariforme sternæ* Rud. renamed; t. h. *Sterna cantia*, *S. minuta*, int.; Brazil.—1850: Dist. 1901: *Microlistrum*.
- cochlear* Looss, 1899b, 667, t. h. *Chelonia mydas*; Egyptian coast.—1899: *Pyelosomum* (type).
- cochlear* Fischer, 1883, 1, t. h. *Halicore dugong*; Philippines.—1883: *Opisthotrema* (type).
- cochleariforme* Rud., 1809a, 326, includes *Festuc. cyprinacea*, t. h. *Cyprinus barbus*.—1809: *Monost.* (*Hypost.*).
- cochleariforme* Rud., 1819a, 681, t. h. *Pelecanus aquila*, *Sterna minuta*; Brazil.—1819: Dist. 1901: *Microlistrum* (type).
- cochleariforme sternæ* Dies., 1850a, 357, see *cochlear*.—1850: Dist.
- cochleariformis* Dies., 1838a, 189, t. h. *Cataphractus*.—1838: *Aspidocotylus*. 1877: *Cotylegaster*. 1879: *Aspidogaster*. 1892: *Aspidocotyle*.
- coccinea* Tasch., 1878, 567, for *coccinea* (*Phylline*).
- cœlebs* Linst., 1875, 192, t. h. *Fringilla cœlebs*.—1875: Dist. 1892: *Agamodist*.
- cœlomaticum* Giard & Billet, 1892a, 613, t. h. cattle; Tonkin.—1892: Dist. 1896: *Dicrocœlium*. 1893: *D. (Dicrocœlium)*. 1907: *Eurytrema*.
- cœruleus* Braun, 1902b, 11, t. h. *Cairina moschata*; Brazil.—1902: *Metorchis*.
- coleostomum* Looss, 1896, 101, t. h. *Pélican*; Egypt.—1896: Dist. 1899: *Anoiktost*. 1899: *Ascocotyle* (type).
- collinsi* Sons., 1895, 182, for *collinsii*, *Amphist.* (*Pseudodiscus*).
- collinsii* Cobbold, 1875l, 741, t. h. *Equus caballus*; India.—1875: *Amphist.* [1895: *A. (Pseudodiscus)*.]
- collinsii* var. *stanleyi* Cobbold, 1879b, 359, t. h. *Equus*.—1879: *Amphist.* [1900: *A. hawkesi*.] [See *stanleyi* 1875.]
- collurionis* Schrank, 1790, 123, t. h. *Lanius collurio*.—1790: *Fasc.* 1803: Dist.
- colostomum* Vaullegard, 1901, 143, for *coleostomum* (Dist.).
- colubri* Bosc, 1802, 271, t. h. *couleuvre d'Amérique*.—1802: *Fasc.* 1809: Dist. [1859: *D. bosci*.]
- colubri* Linst., 1877, 192, t. h. *Coluber natrix*.—1877: *Tetracotyle*. [1889: *Holost. variable*.]
- colubri americani* Rud., 1819a, 121, *D. colubri* 1809, renamed.—1819: Dist. [1859: *D. bosci*.]
- colubri murorum* Rud., 1819a, 121, t. h. *Coluber murorum*.—1819: Dist. [1850: *D. allostomum*.]
- colubri natrix intestinalis* Rud., 1809a, 433, t. h. *Coluber natrix*.—1809: Dist. [1819: *D. mentulatum*.]
- colubri natrix pulmonalis* Rud., 1809a, 434.—1809: Dist. [1819: *D. naja*.]
- colubri tessellati* Rud., 1819a, 121, t. h. *Coluber tessellatus*.—1819: Dist. [1850: *D. mentulatum*.]
- columbæ* Mazzanti, 1889a, 161, t. h. *Columba livia*; Pisa.—1889: Dist. [1896: *Mesogonimus commutatus*.]
- columbæ liviæ* Mueller, 1897, 26, t. h. *Columba livia*.—1897: *Echinost.*
- columbellæ* Pag., 1862, 306, t. h. *Columbella rustica*.—1862: *Cerc.*
- colymbi immeris* Viborg, 1795, 241.—1795: *Fasc. s. Ligula*.
- comes* Haswell, 1893e, 96, t. h. *Astacopsis serratus*; Australia.—1893: *Temnocephala*.
- cometa* Bory de St. Vincent, 1823a, 354, in infusions d'orge.—1823: *Cerc.*
- commune* Olss., 1876, 31, t. h. *Labrus*.—1876: Dist. 1886: *D. (Dicrocœlium)*. 1901: *Allocreadium*.
- communis* Odhn., 1905, 348, in numerous Scandinavian marine fishes.—1905: *Hemius*.
- commutatum* Dies., 1858e, 339, Dist. *dimorphum* Wagener, 1852 [not Dies., 1850], renamed, t. h. *Phasianus gallus*; Pisa.—1858: Dist. 1889: *Mesogonimus*. [1899: *Clinost.*]
- commutatum* Dies., 1850a, 311, t. h. *Sterna caspica*; M. C. V.—1850: *Hemist.*
- compactum* Cobbold, 1859d, 363, t. h. *Viverra mungos*.—1859: Dist. 1892: *Mesogonimus*. [1899: *Paragonimus*.] 1900: *Paragonimus*.

- compactus* Fischder., 1901, 370, t. h. *Bos taurus*; Africa.—1901: Stephanopharynx (type).
- compascua* Kowal., 1898, 72, see *xanthosoma compascua*.—1898: Opisthorchis. 1902: Metorchis.
- complanatum* Rud., 1814a, 103, t. h. *Ardea cinerea*; Berlin, Germany.—1814: Dist. 1845: Dist. (Dicrocoelium). 1899: Clinost.
- complanatum* Erc. of Par., 1894, 144, for *campanulatum* (Dist.).
- complexum* Stiles & Hass., 1894e, 425, t. h. *Felis catus dom.*; U. S. A.—1894: Dist. (Dicrocoelium). 1896: Opisthorchis. 1899: Metorchis.
- complexus* Seely, 1906, 249, t. h. *Rana pipiens*; North Carolina, U. S. A.—1906: Pneumonœces.
- complicatum* Mehlis; 1846, 141, t. h. *Haliaëtus carbo*.—1846: Dist.
- compressus* Brand., 1898a, 27, t. h. *Bos indicus*; Vien. Mus.—1898: Gastrothylax.
- concarum* Crep., 1825a, 45, t. h. *Colymbus rufogularis*.—1825: Dist. 1892: D. (Dicrocoelium). 1899: Tocotrema. 1899: Cryptocotyle (type). 1899: Cotylogonimus (Cryptocotyle, type). 1903: Cryptocotyle.
- conchicola* Baer, 1826a, 124, t. h. *Anadonta*, Unio; Prussia.—1826: Aspidogaster (type). 1851: Aspidonotus (type).
- conchicole* Gronkowski, 1902a, 515, for *conchicola* (Aspidogaster).
- conchiola* Mont., 1888, 40, for *conchicola* (Aspidogaster).
- conchycola* Dies., 1850a, 414, for *conchicola* (Aspidogaster).
- concinna* Scott, 1904, 278, t. h. *Trygon pastinaca*; Scotland.—1904: Thaumatoctyle (type).
- concinna* Scott, 1902, 301; t. h. not given.—1902: Acanthocotyle.
- concinnum* Braun, 1901, 700, t. h. *Viverra zibetha*.—1901: Dicrocoelium.
- confusum* Looss, 1894a, 2, 101, *D. clavigerum* of Duj., 1845a, renamed; t. h. *Rana esculenta*; Paris, Rennes.—1894: Dist. 1899: Prosotocus (type). 1905: Pleurogenes.
- confusum* Odhn., 1905, 357, bothryophorus of Looss, 1899, 728, renamed; t. h. *Alosa finta* in Mediterranean and *Clupea harengus* in North Sea.—1905: Lecithaster (type by Odhn.).
- coni mediterranei* Fil., 1857c, 14, t. h. *Conus mediterraneus*; Mediterranean.—1857: Cerc. 1858: Cercariæum.
- conicum* Polonio, 1859, teste Par., 1894, 627.—1859: Dist.
- conicum* Polonio, 1859, t. h. *Natrix torquata*; Padua.—1859: Diplodiscus.
- conicum* Zed., 1803a, 188, *Festucaria cervi* Zed., 1790, renamed; t. h. *Cervus elaphus*.—1803: Monost. 1809: Amphist. [1901: Paramphist. cervi, type.]
- coniferum* Mehlis in Creplin, 1846, 138, t. h. *Colymbus cristatus*.—1846: Holost.
- conis* Perroncito, 1886, 250, misprint for *conus* Crep., 1825.—1886: Dist.
- coniunctum* Rivolta, 1884, 26, for *conjunctum*, 1860 (Dist.).
- conjunctum* Cobbold, 1860a, 8, t. h. *American Canis fulvus*.—1860: Dist. 1893: D. (Brachylaimus). 1895: Opisthorchis. 1899: Metorchis.
- conjunctum* of Lewis & Cunningham, as a parasite of man, in India, see *noverca*.—1872: Dist. 1895: Opisthorchis.
- conoideus* Bloch, 1782a, 35, t. h. *Anas boschas dom.*; Europe.—1782: Cuculanus. [1850: D. echinatum.] 1886: Dist. 1896: Echinost.
- conostomum* Olss., 1876, 17, t. h. *Coregonus oxyrhynchus*.—1876: Dist. 1886: D. (Brachylaimus). [1899: Spathidium.] 1902: Phyllodist.
- constrictum* Dies., 1850a, 322, t. h. *Abramis brama*.—1850: Monost. 1892: Diplostomulum.
- constrictum* Leared, 1862, 271, t. h. edible turtle; see *mistroides*.—1862: Dist. 1896: Mesogonimus. 1899: Hapalotrema (type).
- constrictum* Mehlis, 1846, 142, t. h. *Anas mollissima*, *A. nigra*.—1846: Dist.
- constructum* Staff., 1900, 407, misprint for *constrictum* Leared (Dist.).
- continuum* Ariola, 1899, 6, t. h. *Carcharias rondeletti*; Genova.—1899: Dist.
- contortum* Rud., 1819a, 118, t. h. *Orthogoriscus mola*; Naples.—1819: D. (Echinost.) 1893. D. (Accaceliium). 1898: Podocotyle. 1899: Accaceliium (type).
- contractus* Looss, 1902, 136, t. h. *Mugil chelo*.—1902: Dicrogaster.

- contribulans* Braun. 1901f. 568, t. h. *Hirundo rustica*.—1901: Eumegacetes.
- conum* Erc., 1881a. or 1882, see Par., 1894. 164, t. h. *Bythinia tentaculata*; Bologna.—1881 or 82: Cerc.
- conum* Huber, 1896a. 578, for *conus* Crepl. (Dist.).
- conus* of Gurtl. 1831. 193.—1831: Dist. [1903: *Opisthorchis felineus*.]
- conus* Crep., 1825. 50, t. h. *Felis catus* dom., *Canis vulpes*.—1825: Dist. 1892: D. (*Dicrocoelium*). 1896: *Opisthorchis*.
- conviva* Luehe 1901. 474, t. h. *Conger conger*; Coll. Berlin.—1901: *Lecithochirium*.
- convolutum* Brand. MS., in Braun, 1901f. 565, t. h. *Platalea ajaja*.—1901: Dist. [1902: *Mesaulus grandis*.]
- copulans* Cohn, 1902. 877, t. h. *Cryptobranchus japonicus*.—1902: *Liolope* (type).
- copulans* Linst., 1904. 254, t. h. *Arnoglossus laterna*; ? Louvain.—1904: *Synaptobothrium* (type). 1906: *Lecithochirium*.
- cordatum* Dies., 1850a. 308, t. h. *Felis cat. fer.*; M. C. V.—1850: Hemist.
- cordiforme* Braun, 1900f. 389, or 1900b. 225, t. h. *Molossus* sp.; Brazil.—1900: *Lecithodendrium*.
- cordiformis* Wolf. 1903. 602, t. h. *Squalus* sp.—1903: *Braunina*.
- coregoni feræ* Chauvannes. —. 62; see Dies., 1858d. 283.—1858: *Cercariæum*.
- cornifrons* Leidy. 1878. 382, t. h. *Donax iossor*.—1878: Dist.
- cornu* Dies., 1839a. 235, t. h. *Doras* sp.=*Cataphractus vacu*; Forte do Rio Branco; Brazil.—1839: Amphist. [1860: *A. nattereri*.]
- cornu* Nitzsch. in Rud., 1819a. 89, t. h. *Ardea cinerea*, *A. garzetta*; Europe.—1819: Amphist. 1819 [p. 357]: Holost.
- cornu* Linst., 1878. 228, t. h. *Abramis vimba*; middle Europe.—1878: *Dactylogyrus*.
- cornu* Zed., 1800a. xvii. t. h. *Ardea cinerea*; Europe.—1800: Dist. 1809: Amphist. 1819: Monost. (Monost.)
- cornucopia* Mol., 1859. 287, t. h. *Strix flammea*?; Batavia.—1859: Holost.
- cornuta* Bosc, 1802a. v. 3. 244.—1802: Cerc.
- cornuta* Osborn. 1903. 63, t. h. crawfish, black bass, and catfish; Lake Chautauqua, N. Y.—1903: *Bunodera*. 1904: *Crepidost*.
- cornutum* Rud., 1808a. xxv; 1809a. 343; t. h. *Charadrius pluvialis*; Greifswald, Europe.—1808: Amphist. 1845: Holost.
- cornutum* Verrill. 1875. 40, t. h. *Tetrapterus albidus*; North America.—1875: Trist.
- coronarium* Cobbold. 1861e. 119, t. h. *Alligator mississippiensis*.—1861: Dist. 1899: Anoiktost. 1896: D. (Echinost.). 1899: Acanthost. 1901: *Acanthochasmus*.
- coronata* Fil., 1855b. 10, t. h. *Lymnæus palustris*, *L. stagnalis*; Moncalier.—1855: Cerc. 1858: C. (*Gymnocephala*).
- coronatum* Leidy. 1888. 127, t. h. terrapin; eastern U. S. A.—1888: Polyst.
- coronatum* Rud., 1819a. 686, t. h. *Didelphis* (?) *virginiana*; Brazil.—1819: Dist. (Echinost.). 1850: *Rhopalophorus* (type). 1892: Echinost. 1898: *Rhopalias* (type).
- coronatum* Rentsch. 1860. 38, t. h. *Gasterosteus spinachia*.—1860: Dist.
- coronatum* Wagener. 1852. 567, t. h. *Corvina nigra*; Nice.—1852: Dist. 1886: D. (Echinost.). 1898: Echinost. 1899. Anoiktost. (type).
- corones* Dies., 1858e. 322, t. h. *Corvus corone*; Ireland.—1858: Holost.
- corpulentum* Lint., 1905. 327, t. h. *Lagodon rhomboides*, *Orthopristis chrysopterus*; Beaufort, N. C.—1905: Dist.
- corrigia* Braun. 1901. 946, t. h. *Tetrao retri*; Coll. Vien.—1901: *Lyperosomum*.
- corrugatum* Duj., 1845a. 409, t. h. *Sorex tetragonurus*; Rennes.—1845: Dist. (*Brachylaimus*).
- corvina* Stoss., 1886. 46, t. h. *Corvina nigra*; Triest.—1886: Dist. 1886: D. (Echinost.). [1899: Anoiktost. (type).]
- corvinum* Stiles & Hass., 1894. 418, t. h. *Corvus americanus*, *C. ossifragus*; U. S. A.—1894: Dist. longissimum. 1898: *Opisthorchis*.
- coryphæna* Bosc. 1802. 271, t. h. "dorade".—1802: Fasc. 1809: Dist. [1850: D. clavatum; D. tornatum.]
- coryphæna hippuridis* Tilesius in Litt. Rud., 1809a. 436.—1809: Fasc. [1809: Dist. coryphænae.]
- coryphenæ* Cobbold, 1879b. 460, for *coryphæna* (Dist.).

- coryphænæ* Cobbold, 1879b, 461, for *coryphænæ* (Dist.).
 [costæ D. Valle (Dist.), a tunicate.]
- cotti* Linst., 1889a, 80 based on Zschokke, 1884, 204, t. h. *Cottus gobio*; Lake Leman.—1884: Monost.
- cotylophorum* Fischder, 1901a, 370, t. h. *Bos taurus* at Togo, *B. zebu* in German East Africa.—1901: Paramphist.
- cotylura* Pag., 1862, 293, t. h. *Trochus cinereus*; Cette.—1862: Cerc.
- craniaria* Dies., 1858, 316, t. h. *Cobitis fossilis*.—1858: *Tylodelphys*. 1860: *Diplost.*
- cranium* Huber, 1896a, 575, misprint for *crassum* (Dist.).
- crassa* Rud., 1793a, 27, *F. melis* Gmelin renamed.—1793: Fasc.
- crassa* Sons., 1888, 124.—1888: *Bilharzia*. 1892: *Gynæcophorus*. 1899: *Schistosoma*.
- crassa* Erc., 1881 or 1882, see Par., 1894, 164, t. h. *Bythinia tentaculata*; Bologna.—1881: Cerc.
- crassicauda* Erc., 1881 or 1882, see Par., 1894, 164, t. h. *Bythinia tentaculata*; Bologna.—1881: Cerc.
- crassicaudatum* Busch, 1851, 99, t. h. *Sagitta*.—1851: Dist.
- crassicaudatum* Leuck. in Kollar, 1836, 81, t. h. *Acipenser stellatus*.—1836: *Diklibothrium*. 1839: *Diclibothrium*. [1840: *Hexacotyle elegans*.] [1850: *D. armatum*.]
- crassicolle* Rud., 1809a, 378, for Fasc. *salamandræ*; t. h. *Salamandra atra*.—1809: Dist. 1845: Dist. (*Brachycœlium*). [1896: *Brachycæcum*, type.] 1899: *Brachycœlium* (type). 1899: Dist. (*Dicrocœlium*). 1899: *Lecithodendrium*.
- crassiusculum* Rud., 1809a, 408, *Planaria bilis* Braun, renamed; t. h. *Falco melanaëtus*.—1809: Dist. 1892: *D. (Brachylaimus)*. 1898: *Opisthorchis*. 1899: *Metorchis*.
- crassiuscula* var. *janus* Kowal., 1898h, 122, t. h. *Anas boschas dom.*.—1898: *Opisthorchis*. 1898: *Campula*. [1899: *Metorchis*.]
- crassiusculus* Wedl, 1857, 258, t. h. *Lucioperca sandra*.—1857: *Gyroductylus*. [1858: *Tetraonchus unguiculatus*.] 1890: *Dactylogyrus*.
- crassum* Cobbold, 1860a, 5, *buskii* renamed, t. h. *Homo*.—1860: Dist. 1899: *Fasciolopsis*.
- crassum* Olss., 1876, 25, t. h. *Hirundo urbica*.—1876: Dist.
- crassum* Sieb., 1836, 234, t. h. *Hirundo urbica*.—1836: Dist. 1892: *D. (Dicrocœlium)*. 1907: *Eumegacetes*.
- crassus* Looss, 1901l, 568, t. h. *Thalassochelys corticata*; Egypt.—1901: *Glyphicephalus*. 1902: *Epibathra* (type).
- crenata* Rud., 1802, 76, t. h. *Gasterosteus aculeatus*, *Pleuronectes maximus*.—1802: Fasc. 1809: Dist. 1889: *Apoblema*. 1901: *Hemiurus*. 1905: *Brachyphallus* (type).
- crenata* Frœlich, 1802a, 60, t. h. *Fulica chloropus*; Europe.—1802: Fasc. [1814: Dist. *uncinatum*.]
- crenata* Mueller, 1774, 64.—1774: Fasc. 1776: *Planaria*.
- crenatum* Mol., 1859, 840, t. h. *Centrolophus pompilius*; Batavii.—1859: Dist. 1886: *D. (Apoblema)*. 1889: *Apoblema*. 1899: *Hemiurus*. [1901: *Lecithocladium excisum*.] 1905: *Brachyphallus*.
- crenulatum* Rud., 1809a, 328, t. h. *Motacilla phoenicurus*; Greifswald.—1809: Monost. (Monost.).
- crenulatum* Cobbold, 1860a, 47, t. h. *Anas nigra*; Ireland.—1860: Holost.
- cristallina* Sons., 1893, 188, for *crystallina* Rud., 1819 (*Tetracotyle*).
 [cristallinum Ren. (Dist.), tunicate.]
- cristata* La Valette, 1855, 23, t. h. *Lymnæus stagnalis*.—1855: Cerc. [1858: *Lophocercaria fissicauda*.]
- cristatum* Rud., 1819a, 117, t. h. *Stromateus fiatola*; Arimini.—1819: Dist. (*Echinost.*). 1860: *Echinost.*
- croaticum* Stoss., 1889, 183, t. h. *Carbo graculus*; Fiume, Croazia.—1889: Dist. 1892: *Echinost.*
- crocodili* Poir., 1886, 30, t. h. *Crocodilus siamensis*.—1886: Dist. 1895: *Echinost.*
- crotali* "Humboldt."—Dist., an arachnoid [now in *Porocephalus*].
- crotali durissi* Rud., 1809a, 433, for *crotali*.—1809: Dist. [1819: *Pentast. proboscideum*.]

- cruciatus* Wedl, 1857, 258, t. h. *Cobitis fossilis*.—1857: *Gyrodactylus*. 1858: *Tetraonchus*. 1890: *Dactylogyrus*.
- crucibulum* Rud., 1819a, 83, t. h. *Muraena conger*, *M. cassini* (*M. myroides*); Naples.—1819: *Monost.* (*Monost.*). 1845: *Dist.* (*Crossodera*). 1850: *Monost.* 1859: *Gasterost.* 1905: *Prosorhynchus*.
- crucifer* Wagener, 1857, 55, t. h. *Cyprinus erythrophthalmus*.—1857: *Dactylogyrus*.
- crumena* Mueller, 1786, 129, in *infuso Ulvæ linzæ marino*.—1786: *Cerc.* 1815: *Furcocerca*. 1827: *Crumena*, type.
- crumenifer* Otto, 1896, 94, see *crumeniferum*.—1896: *Gastrothylax*.
- crumeniferum* Crep., 1847, 30, t. h. *Bos taurus indicus*.—1847: *Amphist.* 1883: *Gastrothylax* (type).
- crumigerum* Fischder., 1903h, 563.—1903: *Amphist.* [1903: *Gastrothylax compressus*.]
- crux* Levin., 1881, 80, t. h. *Modiolaria discors*; *Egedisminde*.—1881: *Bucephalus*.
- cryptobothrium* Ben., 1870, 1871a, 31, t. h. *Trigla gurnardus*; Belgium.—1870: *Dist.*
- cryptallinum* Rud., 1819a, 100, hosts *Rana esculenta*, *R. temporaria*, *Bufo viridis*, *B. igneus*, *Vipera berus*; Berlin.—1819: *Dist.* 1877: (ex parte) *Tetracotyle*.
- cteniceps* Leidy MS. in Stiles & Hass., 1894, 249, t. h. *Fiber zibethicus*.—1894: *Dist.*
- ctenolabri* Staff., 1905, 682, t. h. *Ctenolabrus adspersus*.—1905: *Dermocystis* (type).
- cucullus* Ziegler, 1883, 540, for *cuculus* (*Bucephalus*).
- cuculus* McCrady, 1874, Dec. 3, 176, t. h. *Ostrea virginiana*; Charleston, S. C.—1874: *Bucephalus*. [1874: *Hydricuculus*, type.]
- cucumerina* Erc., 1881, see Par., 1894, 364, t. h. *Bythinia tentaculata*; Bologna.—1881: *Cerc.*
- cucumerina* Rud., 1804, 166 in liver of *Pleuronectes maximus*.—1804: *Fasc.*
- cucumerinum* Rud., 1809a, 360, host *Avis riparia*, gen. sp. incert.—1809: *Dist.* 1889: *Monost.* 1902: *Typhlocœlum*.
- cuneatum* Rud., 1809a, 358, t. h. *Otis tarda*; Greifswald.—1809: *Dist.* 1901: *Prosthogonimus*.
- cuspidatum* Looss, 1896b, 96, t. h. *Milvus parasiticus*; Matarieh.—1896: *Dist.* 1899: *Anoiktost.* 1899: *Centrocestus* (type).
- cuticola* Nord., 1832, 49, t. h. *Cyprinus*, see p. 290.—1832: *Holost.* [1832: *Cryptostomum*.] 1850: *Diplost.* 1892: *Tetracotyle*. [1898: *Hemist. denticulatum*.] 1902: *Tetracotyle*.
- cuticula* Kroyer, 1852-53a, 1250, for *cuticola* (*Holost.*).
- cycladis rivicolæ* Dies., 1850a, 298, based on Sieb., 1837, 388, t. h. *Cyclas rivicola*.—1850: *Cerc.* 1855: *Cercariaum*.
- cyclidium* Mueller, 1773, 68, in *Aquis purioribus frequens*.—1773: *Cerc.* 1827: *Cyclidium*, type.
- cyclophora* Braun, 1896, 3, t. h. *Notothenia* sp.; Navarin, Puerto Toro.—1896: *Lophocotyle* (type).
- cyclopteri* Rud., 1809a, 438, t. h. *Cyclopterus lumpus*.—1809: *Dist.* [1850: *D. reflexum*.]
- cygni oloris* Dies., 1858e, 344, based on Bellingham, 1844, 427.—1858: *Dist.* [1858: *D. echinatum*.]
- cygnoides* Zed., 1800a, 163, t. h. *Rana esculenta*.—1800: *Dist.* 1845: *D.* (*Dicrocœlium*). 1889: *D.* (*Polyorchis*). 1898: *Pleorchis*. 1899: *Phyllodist.* 1899: *Gorgodera* (type).
- cygnoides* Schrank, 1803, 212, t. h. ———.—1803: *Fasc.*
- cygnoidis* Sons., 1893, 187, for *cygnoides* (*Dist.*).
- cylindraceum* Zed., 1800a, 163, t. h. *Rana esculenta*.—1800: *Dist.* 1802: *Fasc.* 1845: *Dist.* (*Dicrocœlium*). 1847: *Brachylæmus*. 1899: *Haplometra* (type).
- cylindraceum* Zed., of Pachinger, 1888.—1888: *Dist.* [1894: *D. variegatum*.]
- cylindrica* Goetze, 1782a, 174, a "Klasse."—1782: *Planaria*. 1841: *Dist.*
- cylindricum* Dies., 1836d, 249, t. h. *Cataphractus murica*; Villa Maria, Brazil.—1836: *Amphist.*
- cylindricum ranæ* Mayer, 1841, 18.—1841: *Dist.*
- cymbiforme* Rud., 1819a, 96, t. h. *Testudo mydas*; Arimini.—1819: *Dist.* 1895: *D.* (*Brachylaimus*). 1899: *Phyllodist.* 1899: *Spathidium*. 1901: *Plesiochorus* (type).

- cymbium* Dies., 1850a, 320, t. h. *Himantopus wilsonii*; Caiçarae, Brazil.—1850: Monost. [1819: *M. flavum*.] 1902: *Hæmatotrephus*.
- cymbuliæ* Græffe, 1860a, 47, t. h. *Cymbulia peronii* Les; Nizza.—1860: Cerc.
- cymbuliæ* delle Chiaje (1841a, 109).—Dist.
- cyprinacea* Schrank, 1790, 122, t. h. *Cyprinus barbatus*.—1790: *Festucaria*.
- cyprinaceum* Zed., 1800a, 164, in intest. *Cyprinorum*.—1800: Dist. [1850: *D. globiporum*.]
- cyprinæ* Leach in Johnston, 1865, 35, t. h. *Cyprina islandica*; Plymouth, Eng.—1865: Monost. [1865: *Malacobdella grossa*.]
- cyprini carassii* Viborg, 1795, 242.—1795: Fasc.
- cyprini idi* (peritonei) Dies., 1858e, 367, t. h. *Leuciscus idus*; Rennes.—1858: Dist. [1858: ? *Tetracotyle echinata*.]
- cyprini idi* Moul., 1856, 233.—1856: *Tetracotyle*. [1858: *T. typica*.]
- cysticola phalangii opilionis* Dies., 1855, 64, see *cystidicola* 1846.—1855: Dist.
- cysticum* Crep., 1846a, 159, t. h. *Planorbis* sp.—1846: Dist.
- cystidicola* Crep., 1846, 156, t. h. *Phalangium opilio*.—1846: Dist.
- cystophona* Will.-Suhm, 1870, 5, for *cystophora* (Cerc.).
- cystophora* Wagener, 1866, 145, t. h. *Planorbis marginatus*.—1866: Cerc.
- dactyliferum* Braun, 1892a, 568, for *dactylipherum* (Dist.).
- dactylipherum* Poir., 1885, 10, t. h. *Argonauta*.—1885: Dist.
- deflectens* Rud., 1819a, 677, t. h. *Sylvia* sp., *Motacilla* sp.; Brazil.—1819: Dist. 1901: *Dicrocœlium*.
- delectans* Braun, 1901g, 945, t. h. *Myiothera ruficeps*; Brazil.—1901: *Dicrocœlium*.
- delicatum* Dies., 1850a, 325, includes Dist. *testudinis* Rud., 1819a, 121, t. h. *Emys europæa*, *Halichelys atra*; Mus. Vien.—1850: Monost.
- delicatum* Rud., 1809a, 373, t. h. *Anas sponsa*.—1809: Dist. 1828: Fasc.
- deliciosum* Olss., 1893, 10, t. h. *Larus argentatus*.—1893: Dist. 1900: *Gymnophallus* (type).
- delitescens* Looss, 1899b, 666, t. h. *Chelonia mydas*; apparently Egypt.—1899: *Crioccephalus* (type). [See also *albus*.]
- delphini* Dies., 1850a, 330, t. h. *Delphinus dalei*; near Havre.—1850: Monost. [1860: *M. blainvillei*.] 1892: *Monostomulum*.
- delphini* Poir., 1886, 34, t. h. *Delphinus delphis*.—1886: Dist. 1892: *Cladocœlium* 1899: *Brachycladium*.
- dendricum* Ben., 1870, 36, for *dendriticum* (Dist.).
- dendriticum* Rud., 1819a, 93, t. h. *Xiphias gladius*.—1819: Dist. 1896: *D.* (*Dicrocœlium*). 1899: *Dicrocœlium*.
- dendyi* Haswell, 1893e, 96, t. h. *Astacopsis bicarinatus*; Australia.—1893: *Temnocephala*.
- dentatum* Lint., 1900, 269, t. h. *Paralichthys dentatus*.—1900: Dist.
- denticulata* Rud., 1802, 91, t. h. *Sterna hirundo*; Greifswald, July.—1802: Fasc. 1809: Dist. (*Echinost.*). 1860: *Echinost.*
- denticulata* Rud., 1805, an arachnoid.—1808: *Polyst.* 1809: *Polyst.* (*Pentast.*), [now in *Linguatula*].
- denticulatum* Rud., 1819a, 90, t. h. *Alcedo ispida*; Mus. Vien., Europe.—1819: *Amphist.* 1845: *Holost.* 1850: *Hemist.*
- denticulatum* Olss., 1876, 10, t. h. *Gadus virens*.—1876: *Octobothrium*. 1895: *Dactylocotyle*.
- depressum* Polonio, 1859, teste Par., 1894, 149, t. h. *Triton cristatus*; Padua.—1859: Dist.
- depressum* Stoss., 1883, 118, t. h. *Dentex vulgaris*; Triest.—1883: Dist. 1886: *D.* (*Brachylaemus*).
- detruncatum* Braun, 1899g, 490, t. h. *Mycteria americana*, *Ciconia americana*; Brazil.—1899: *Clinost.* 1900: Dist.
- diadema* Mont., 1902, 137, t. h. *Trygon violacea*.—1902: *Epibdella*. 1903: *Phylline*. 1902: *E.* (*Phylline*).
- diaphanum* Odhn., 1902, 154, t. h. *Polypterus bichir*; White Nile.—1902: *Callodist.* (type).
- diaphanum* Staff., 1904, 494, t. h. *Ambloplites rupestris*; Canada.—1904: *Protenteron* (type).

- diaphanum* Cerf., 1894k, 936, t. h. Raja batis.—1894: Merizocotyle (type).
- dichotoma* Mueller, in LaValette, 1855, 38, free form.—1855: Cerc. 1858: C. (Schizocerca).
- dicorynum* Dies., 1850a, (359), 680, t. h. Lampris guttatus; new name for D. affine Dies.—1850: Dist. 1886: D. (Köllikeria?).
- dicanocelum* Fischder., 1901a, 369, t. h. Bos taurus indicus; Coll. Berl. Vet. School.—1901: Paramphist.
- dictyotus* Mont., 1893, 156, reticulatum Looss, 1885, renamed.—1893: Dist. 1893: Mesogonimus (type).
- didelphidis* Par., 1896, 3, t. h. Didelphys azaræ; Paraguay.—1896: Dist. (Brachylaimus). 1904: Plagiorchis.
- didelphydis* Stoss., 1904, 2, for didelphidis Par.—1904: Dist. [D. (Brachylaimus).]
- diesingi* Braun, 1901, 561, for diesingii 1860.—1901: Dist. [1902: Microlistrum cochlear.]
- diesingi* Fil., 1837a, 334, t. h. Planorbis nitidus; Ticino.—1837: Diplodiscus. 1856: Cerc. [1850: Diplocotyle mutabile (type).]
- diesingii* Fil., 1854a, 6, for diesingi (Cerc.). 1854: Diplodiscus.
- diesingii* Cobbold, 1860a, 14 (D. cochlear Dies., renamed), t. h. Sterna cantiaica, S. minuta; Brazil.—1860: Dist. [Microlistrum cochlear.]
- differeus* Sons., 1891, 261, t. h. Cantharus lineatus.—1891: Trochopus.
- difformis* Wagener, 1857, 63, t. h. Cyprinus erythrophthalmus.—1857: Dactylogyrus.
- diffusocaliferum* Gastaldi, 1854, 5, t. h. Rana esculenta.—1854: Dist.
- digitata* Mont., 1903a, 309, t. h. Palemonetes argentinus.—1902: Temnocephala.
- digitatum* Rathke, (1843), 242, t. h. Hippoglossus gigas; Norway.—1843: Octobothrium. [1850: Diclidophora palmata.] [1879: Octobothrium palmatum.]
- digitatus* Looss, 1899b, 641, t. h. Sphyræna vulgaris; Egypt.—1899: Hemiurus. 1901: Lecithochirium. 1907: Plerurus (type).
- dilatatum* Fischer de Waldheim, 1840a, 158, t. h. Gallus communis; Vlnæ.—1840: Dist. 1860: Echinost. [1892: E. echinatum.]
- dilatatus* Dady, 1905, 233, t. h. Colossoma brachypoma; Paraguay.—1905: Chiorchis.
- dilatatum* Schneidemuehl, 1896, 303, misprint for dilatatum (Dist.).
- dimidiatum* Crep., 1829, 55, t. h. Acipenser sturio.—1859: Dist.
- dimorphism* Dies., 1850a, 353 [contains D. marginatum Rud., 1819a, 680, and Duj., 1845a, 446], t. h. Salmo carapus, etc., see page 184; Brazil.—1850: Dist. 1886: D. (Brachylaimus). 1899: Clinost.
- dimorphism* of Wagener, 1852, 555, see commutatum 1858, from chicken.—1852: Dist. 1890: Mesogonimus.
- diodontis* Oken, 1815, 182, t. h. Diodon sp.; Norka to Cal.—1815: Phylline (type of P. Oken, teste Odhn.). [Trist. maculata.] [Capsala martinieri.]
- diplichanthus* Massa, 1903, 254, t. h. Trigla hirundo.—1903: Trochopus.
- diplocotylea* Pag., 1857, 25, t. h. Planorbis marginatus.—1857: Cerc. [1858: Diplocotyle mutabile.] [1885: Amphist. subclavatum.]
- diplodiscoides* Cohn, 1904, 240, t. h. Rana esculenta.—1902: Opisthodiscus (type).
- diploorchis* Odhn., 1905, 318, t. h. Lumprenus medius; Spitzbergen, off King's bay.—1905: Monorchieides (type).
- [*dipsacum* Lint., 1897a, 806, cestode (Octobothrium).]
- discus* Mueller, 1786, 138, pl. 20, fig. 3, in aqua palustri raro.—1786: Cerc. 1829: Cyclidium.
- diserialis* Ssinitzin (1896), in Rallus aquaticus.—1896: Notocotyle.
- dispar* Looss, 1902, 888, t. h. dogs and cats; Egypt.—1902: Heterophyes.
- disticha* Mueller, 1776, 224.—1776: Fasc. 1803: Dist.
- distomatosa* Linst., 1889a, 118, based on Sons., 1884, 98, t. h. Cleopatra bulimoides; near Cairo, Egypt.—1889: Cerc.
- distomi folii* Looss, 1894a, 251.—1894: Cerc. [Dist. folium.]
- distomi hepatici* Looss, 1894a, 252.—1894: Cerc. [Fasc. hepatica.]
- distomi homolostomi* Linst., 1889a, 120, t. h. Limnæa stagnalis.—1889: Cerc. [Dist. holostomum.]
- distomi militaris* Braun, 1893a, 832.—1893. Cerc. [Dist. militare.]

- distomi perlati* Looss, 1894a, 32.—1894: Cerc. [Dist. perlatum.]
- distomi retusi* Linst., 1878a, 327, in *Limnæa stagnalis*.—1878: Cerc. [Dist. retusum.]
- divergens* Rud., 1809a, 371, Fasc. blennii renamed, t. h. *Blennius viviparus*.—1809: Dist.
- divergens* Looss, 1902e, 640, t. h. *Ranzania truncata*; Trieste.—1902: Orophocotyle.
- dolichocotyle* Cohn, 1903, 37, t. h. *Herpetodryas fuscus*.—1903: Amphist. 1904: *Ca-tadiscus* (type).
- donavani* Mont., 1888, 16, for *donavini* (Microcotyle).
- donavini* Ben. & Hesse, 1863; 1864, 114, t. h. *Labrus donavini*.—1863; 1864: Microcotyle (? type).
- draconis* Briot, 1904, 126, t. h. *Trachinus draco*; North Sea.—1904: Microcotyle.
- dubia* Gœze, 1782a, 177, see *alata*.—1782: Plan.
- dubium* Leidy, 1856, 45, t. h. *Rusticola minor*.—1856: Clinost. 1858: Dist.
- dubium* Cobbold, 1860, 45, t. h. *Corvus corone*.—1860: Holost. [1858: *H. coronæ*.]
- dubium* Cobbold, 1858b, 156 t. h. *Gasterosteus spinachia*.—1858: Monost. 1892: *Monostomulum*.
- dubius* Klein, 1905, 68, t. h. *Coluber olivaceus*.—1905: *Halipegus*.
- dujardini* MacCallum, 1904, 547, for *dujardinii* (Echinost.).
- dujardinianus* Dies., 1850a, 432, t. h. *Cyprinus carpio*, *Leuciscus rutilus*.—1850: *Gyrodactylus*. 1858. *Dactylogyrus*.
- dujardinii* Cobbold, 1860a, 37, Dist. *histris* Duj., 1845a, 433, *D. histris* Dies., 1850a, 393, renamed; t. h. *Pleuronectes maximus*, *P. platessa*.—1860: Echinost.
- dujardinii* Cobbold, 1860a, 29, *D. soleæ* 1845, renamed, t. h. *Solea vulgaris*, see *Pleuronectes solea*.—1860: Dist.
- dujardinii* Dies., 1850a, 420, t. h. *Cyprinus erythrophthalmus*.—1850: *Diporpa* (type). [1879: *Diplozoon paradoxum*, type.]
- dujonii* Braun, 1893a, 917, see also *dujonis* (Monost.).
- dujonis* Leuck., (1874), 419, t. h. *Halicore dujong*.—1874: Monost.
- duplicata* Baer, 1826, 124, t. h. *Anadonta ventricosa*; *Regiomontii*.—1826: Dist. 1856: Cerc. [1850: *Rhopalocerca tardigrada*, type.]
- duplicatum* Rud., 1819a, 125, *Polyst. thynni* 1811, renamed, t. h. *Scomber thynnus*; Balearic Isles. —1819: *Polyst.* 1845: *Polyst.* (*Hexacotyle*). 1850: *Plagiopeltis* (type).
- ecaudata* Eichwald, 1829a, 248, t. h. *Lymnæus stagnalis*.—1829: Cerc.
- echeneidis remoræ* Rud. (1821–8), 163, t. h. *Echeneis remora*.—18—?: Dist.
- echeneis* Wagener, 1857, 99, t. h. *Chrysophrys aurata*.—1857: *Dactylogyrus*. 1889: *Diplectanum*.
- echinata* Dies., 1858e, 367, new name for Dist. *cyprini idi* (peritonei), see Duj., and T. *acerinæ cernuæ*, t. h. *Leuciscus idus*, *Acerina cernua*; Europe.—1858: *Tetracotyle*.
- echinata* Sieb., 1837, 187, t. h. *Lymnæus stagnalis*; *Gedani*.—1837: Cerc. 1855: Cerc. (Hormocerc.). 1858: Cerc. (*Nephrocephala*). [1858: Dist. *echinatum*.] 1861: Dist.
- echinata* Nord., 1840, 621.—1840: Fasc. [1840: *F. trigonocephala*.]
- echinatoides* Fil., 1854, 266, t. h. *Paludina vivipara*, *P. achatina*; Lake Varese, Lombardy.—1854: Cerc. 1855: Cerc. (Hormocerc.). 1858: *C.* (*Nephrocephala*). [1858: Dist. *echiniferum*.]
- echinatoides* Dies., 1858d, 263, for *echinatoides anodontæ*.—1858: Dist.
- echinatoides anodontæ* Pag., 1857, 32, t. h. *Anadonta cygnea*.—1857: Dist.
- echinatum* Linst., 1878, 223, t. h. *Pandion haliaëtus*.—1878: Monost.
- echinatum* Fil., 1837a, 338, t. h. *Paludina impura*; Italy.—1837: *Heterost.* (type). 1858: *Cercariaeum*.
- echinatum* Zed., 1803a, 220, t. h. *Anas domestica*, *A. querquedula*; includes: *Cucullanus conoideus* Bloch, 1782; *Planaria teres* Gœze, 1782; Dist. *anatis* Zed., 1800; *Festucaria anatis* Schrank; Fasc. *anatis* Gmelin.—1803: Dist. 1828: Echinost., type. 1809: *D.* (Echinost.).
- echinifera* LaValette, 1855, 14, t. h. *Paludina vivipara*.—1855: Cerc. 1855: Dist. [1856: Cerc. *echinatoides*.] [1858: *C.* (*Nephrocephala*) *echinatoides*.] [1873: Dist. *militare*.] 1892: Echinost.

- echiniferum paludinae* Pag., 1857, 30, t. h. *Paludina vivipara*.—1857: Dist.
- echinocephalum* Rud., 1819a, 115, t. h. *Falco milvus*; includes *D. milvi*.—1819: Dist. (Echinost.). 1860: Echinost.
- echinocerca* Fil., 1855b, 17, t. h. *Buccinum linnæi*; Golf de Gênes.—1855: Cerc. 1858: *Histrionella*. [1858: Dist. *appendiculatum*.]
- echinostomum* Dies., 1850a, 326, t. h. *Cathartes aura* and *Sula fusca*; Brazil; includes Dist. *planicolle* Rud., from *Pelecanus sula* in Brazil.—1850: Monost. [1902: *Anoictost. planicolle*.]
- echiuri* Greef, 1879a, 130, t. h. *Echiurus pallasi*.—1879: Dist.
- efemera* Ssinitzin, 1905, 158, for *ephemera* (Cerc.).
- ehrenbergii* Focke, 1836a, 191.—1836: *Planaria*.
- elaphi* Gmelin, 1790a, 3054, *cervi* renamed, t. h. *Cervus elaphus*.—1790: Fasc. 1800: Monost. [1850: *Amphist. conicum*.]
- elegans* Baer, 1826, 125, t. h. Stör=*Acipenser sturio*.—1826: *Nitzschia* (type). 1864: Trist.
- elegans* Ben., 1858a, 1861a, 60, t. h. *Sciæna aquila*; Belgium.—1858, 1861: *Calceost.* (type.)
- elegans* Dies., 1858e, 364, new name for *Epibdella sciænæ*, t. h. *Sciæna aquila*; near Ostend.—1858: *Benedenia* (type).
- elegans* Goto, 1894a, 188, t. h. *Scombrops chilodipteroides*; Japan.—1894: *Microcotyle*.
- elegans* Looss, 1899b, 692, t. h. *Phœnicopterus roseus*; Gizeh.—1899: Echinost.
- elegans* Mont., 1890, 191, *Raja clavata*; Naples.—1890: *Acanthocotyle*.
- elegans* Mueller in LaValette, 1855, 13, free form.—1855: Cerc. 1858: *Histrionella*.
- elegans* Olss., 1868, or 1869, 2, t. h. *Chimæra monstrosa*; Skagerrack.—1868: *Macraspis* (type). [1888] 1891: *Aspidogaster*.
- elegans* Rud., 1802, 65, t. h. *Fringilla domestica*; Greifswald.—1802: Fasc. 1809: Dist. 1845: *D. (Brachylaimus)*. 1902: *Plagiorchis*.
- elegans* Nord., 1832, 106, t. h. *Cyprinus brama*.—1832: *Gyrodactylus* (type).
- elegans* Nord., 1840, 597, 600, includes *crassicaudatum* (*Diklibothrium*), t. h. *Acipenser stellatus*.—1840: *Hexacotyle*.
- elephantis* Dies., 1858, 354, based on Jackson, 1847, 317, t. h. *Elephas indicus*.—1858: Dist. 1892: *Cladocœlium*.
- ellipticum* Stoss., 1886, 64, for *ellipticum* Mol., 1858.—1886: *D. (Echinost.)*.
- ellicticum* Mont., 1892, 715, for *ellipticum* (Monost.).
- elliptica* Dies., 1850a, 421, t. h. *Labrax mucronatus*.—1850: *Plectanocotyle* (type). 1858: *Plectanophorus* (type).
- ellipticum* Mol., 1858, 130, t. h. *Acipenser nasus*; Patavii.—1858: Dist. 1886: *D. (Echinost.)*.
- ellipticum* Brand., 1888a, 59, t. h. *Piaya cayana*; Brazil.—1888: Hemist.
- ellipticum* Brand., 1888a, 67, t. h. *Bubo magellanicus*; Brazil.—1888: Holost.
- ellipticum* Rud., 1809a, 333, *M. bombyne* 1800, renamed.—1809: Monost. (Monost.). [1853: Dist. *variegatum*.]
- ellipticus* Pratt, 1903, 25, t. h. *Heterodon platyrhinus*; North America.—1903: Renifer (type).
- elongata* Goto, 1894a, 210, t. h. *Pagrus tumifrons*; Mogi and Hakodate, Japan.—1894: *Diclidophora*.
- elongata* Nitzsch, 1826, 150, t. h. Stör.—1826: Trist. 1840: *Capsala*. [1850: *N. elegans*.] 1865: *Nitzschia*.
- elongatum* Mehlis, 1831, 177, t. h. *Larus argentatus*, *L. marinus*, *L. ridibundus*.—1831: Dist.
- elongatus* J. Poir., 1883, 76, t. h. *Palonia frontalis*; Java.—1883: *Gastrothylax*. 1903: *Amphist*.
- elongatus* Pratt, 1903, 25, t. h. *Heterodon platyrhinus*; North America.—1903: Renifer.
- emarginata* Olss., 1876, 11, t. h. *Raja clavata*.—1876: *Onchocotyle*. 1890: *Octocotyle*.
- emarginatum* Rud., 1819a, 124.—1819: *Pentast.*
- emarginatum* Dies., 1839a, 237, t. h. *Callithrix noctivaga*; Matogrosso, Brazil.—1839: *Amphist*.
- ematobia* Sons., 1884, 20, for *hæmatobia* (*Bilharzia*).

- emberizæ citrinellæ* Dies., 1836d, 253.—1836: Amphist.
- embryo* Olfers, 1816, 110, t. h. *Perca vulgaris*, P. *cernua*.—1816: Dist.
- emendatus* Braun, 1901g, 895, new name for Dist. *meropis* of Par. [not of Rud.] = *Megacetes triangularis* of Looss [not D. *triangulare* Dies.]; t. h. *Merops apiaster*.—1901: *Eumegacetes* (type).
- [*endemica* Sons., 1884, 17, not as specific name.—1884: Dist. 1884: *Bilharzia*.]
- endemicum* Bælz, 1883, 235, t. h. *Homo*; Japan.—1883: Dist. *hepatis*. 1892: D. (*Brachylaimus*). [Opisthorchis *sinensis*.] 1907: *Clonorchis*.
- endemicum hepatis* St.-Remy, 1883, 528, cf. *hepatis endemicum*.—1883: Dist.
- endobala* Ssinitzin, 1906, 685, for *endoloba* (*Opisthioglyphe*).
- endobola* Ssinitzin, 1905, 121, for *endoloba* (*Opisthioglyphe*).
- endolobum* Mont., 1891, 110, for *endolobum* (Dist.).
- endolobium* Gurlt, 1845a, 288, for *endolobum* (Dist.).
- endolobum* Duj., 1845a, 397, t. h. *grenouilles vertes et rousses*, et la *Salamandre*; Rennes.—1845: Dist. 1899: *Opisthioglyphe* (type).
- engæi* Haswell, 1893e, 97, t. h. *Engæus fossor*; Gippsland.—1893: *Temnocephala*.
- engei* Mont., 1899, 83, for *engæi* (*Temnocephala*).
- enterarchos* de Fil.—Dist. [1896: D. *crassicolle*.]
- entzi* Ratz, 1900, 534, t. h. *Ardea purpurea*.—1900: *Opisthorchis*.
- epatica* Brera, 1809a, 92, for *hepatica* (Fasc.).
- epatica* Rosa, 1794, 5, in *Ardea purpurea*.—1794: Fasc. [1850: Dist. *heterostomum*.] [1900: ? *Clinost. heterostomum*.]
- epatico* Galli-Valerio, 1893a, 178 (Dist.), see *hepatica*.
- ephemera* Nitzsch, 1807, 33, t. h. *Planorbis corneus*; Halle.—1807: Cerc. 1828: *Histrionella* H. & E., type. [1858: *Glenocerc. flava*.] [1858: Dist. *trigonocephalum*.]
- epichitum* Fischder., 1904, 458, t. h. *Bos taurus indicus*, *Buffelus indicus*; Cochinchina.—1904: *Paramphist*.
- equi* Gmelin, 1790a, 3054, t. h. *Equus caballus*.—1790: Fasc. *hepatica*.
- equi* Burke, 1882a, 322, t. h. *Equus caballus*.—1882: *Hæmatobium*.
- ercolani* Mont., 1893, 40, for *ercolanii*.—1893: Dist.
- ercolanii* Mont., 1893, 40.—1893: Dist. 1895: D. (*Dicrocoelium*). 1901: *Telorchis*.
- ericetorum* Linst., 1898, 761, t. h. *Xerophilus ericetorum*; near Göttingen, Germany.—1898: Cerc.
- erinacei* E. Bl., 1847a, 300, t. h. *Erinaceus europæus*; Paris.—1847: *Brachylæmus*. [1850: Dist. *linguæforme*.] 1889: Dist. [1898: *Mesogonimus*.]
- erinaceum* Poir., 1886, 37, t. h. *Delphinus delphis*.—1886: Dist. 1892: D. (*Dicrocoelium*). [1899: ? *Astia*.] 1904: *Astiotrema*.
- ericiis* Mueller, 1784, 92; [1788], 42, t. h. *Salmo eriox*.—[1788]: Fasc. 1803: Dist. [1850: D. *hyalinum*.]
- erraticum* Rud., 1819a, 120, t. h. *Fringilla linaria*, *Motacilla alba*, *Parus cœruleus*, P. *major*, P. *palustris*, P. *pendulinus*.—1819: Dist. 1899: *Plagiorchis*.
- erraticum* Rud., 1808a, 458; 1809a, 344, t. h. *Larus septentrionalis*; Greifswald, Europe.—1808: Amphist. 1845: Holost.
- erythrini* Ben. & Hesse, 1863, 115; 1864, 115, t. h. *Pagellus erythrinus*.—1863: *Microcotyle*.
- erythrini* Braun, 1890a, 418, for *erythrini* (*Microcotyle*).
- erythro* Dies., 1855a, 400, based on Cerc. *paludinae impuræ* Baer, 1827b, 655.—1855: *Cercariæum*. 1858: *Histrionellina*.
- esmarkii* Scott, 1901, 147, t. h. *Gadus esmarkii*; Shetland.—1901: *Octobothrium*.
- esocis lucii* Rud., 1809a, 438, based on Rud., 1803, 29.—1809: Dist.
- euculus* McCrady, 1874, misprint for *cuculus* (*Bucephalus*).
- euryporum* Looss, 1896, 144, t. h. *Milvus parasiticus*; Cairo, Egypt.—1896: *Echinost.*
- eurystomum* Linst., 1877, 183, t. h. *Anas clangula*.—1877: Dist. 1892: D. (*Dicrocoelium*).
- eustemma* Brand., 1888a, 65, *Eustemma caryophyllum* renamed, t. h. *Accipiter pileatus*; Brazil.—1888: Holost.
- exacantha* Mont., 1891, 104, for *hexacantha* (*Placunella*).

- exacanthus* Massa. 1903. 255. for hexacanthus (Trochopus).
- exasperatum* Rud.. 1819a. 117. t. h. *Sorex eremita*: Mus. Vienna.—1819: Dist. 1819: D. (Echinost.). 1845: D. (Brachylaimus).
- excavata* Rud.. 1803a. 28. t. h. "Storch." *Ardea ciconia*: Greifswald.—1803: Fasc. 1809: Dist. 1819: Holost. 1819: Amphist. 1850: Hemist.
- excavatum* Nord.. in Dies.. 1850a. 428. renamed nordmanni 1850, in *Brama mediterranea*.—1850: Trist. [1850: *Encotyllabe nordmanni*.]
- excisiforme* Cohn. 1902k. 54. t. h. *Scomber scomber*.—1902: *Lecithocladium*.
- excissum* Mont.. 1891. 520. for excisum (Apoblema).
- excisum* Rud.. 1819a. 112. t. h. *Scomber scomber* at Arimini: S. colias at Naples.—1819: Dist. 1828: Fasc. 1845: Dist. (Crossodera). 1886: D. (Apoblema). 1889: Apoblema. 1899: *Hemius*. 1901: *Lecithocladium* (type). 1902: D. *Lecithocladium*.
- excisum* Linst.. 1906. 12. t. h. *Egolius otus*, *Strix flammea*.—1906: Holost.
- exfoliata* Moul.. 1856a. 57. new name for Dist. of *Leucochloridium paradoxum*.—1856: Cerc.
- exigua* Looss. 1896. 230. t. h. *Cleopatra bulimoides*: Egypt.—1896: Cerc.
- exiguum* Mueh.. 1898. 17. t. h. *Circus rufus*.—1898: Dist. 1898: *Opisthorchis*. 1899: *Holometra* (type).
- exiguum* Mehlis in Crep.. 1846. 145. t. h. *Cygnus musicus*.—1846: Holost.
- exile* Stoss.. 1902. 17. t. h. *Totanus ochropus*.—1902: *Cycloceelum*.
- exilis* Looss. 1899b. 628. t. h. *Bagrus bayad*: Cairo. Egypt.—1899: *Leptalea* (type). 1900: *Emoleptalea* (type).
- exocati* Par. & Perugia. 1893. 1. includes *Monost. filum* G. Wagener [not Duj.], t. h. *Exocætes volitans*: Genova.—1893: *Didymozoon*.
- expansum* Crep.. 1842. 327. t. h. *Aquila haliaëtus*.—1842: *Monost.* 1892: Dist. 1901: *Tocotrema*. 1903: *Scaphanocephalus* (type).
- explanatum* Crep.. 1847. 34. t. h. *Bos taurus indicus*: Berlin.—1847: *Amphist.* 1904: *Paramphist.*
- crispinosum* Hausmann. 1896. 391. t. h. *Barbus fluviatilis*.—1896: Dist. [D. *perlantum*.] 1899: *Asymphyllodora*.
- jaba* Bremser in Schmalz. 1831. 11. t. h. *Parus major*, *Silvia sibilatrix*, *Motacilla boarula*.—1831: *Monost.* 1860: *Wedlia*. 1904: *Monostromum*, misprint.
- jabacum* Dies.. 1838. 189. in *Manatus australis*: 1839a. 236. in *Manatus exunguis*: at Borba and Forte do Rio Branco. Brazil.—1839: *Amphist.* 1901: *Chiorchis* (type).
- jabenii* Mol.. 1859. 289. t. h. *Cantharus vulgaris*: Batavii.—1859: Dist. 1886: D. (Brachylaimus).
- jactum* Mont.. 1893. 32. misprint for *iractum* (Dist.).
- jalcatus* Wedl. 1857. 258. t. h. *Cyprinus* sp.—1857: *Gyroductylus*. 1858: *Dactylogyrus*.
- jalcacea* Leidy MS. in Stiles & Hass.. 1894d. 250.—1894: Dist. [probably *trapezium*].
- jaleonis chrysaëti* Rud.. 1809a. 429. D. *felleum jaleonis chrysaëti*: Viborg.—1809: Dist.
- jaleonis milvi* Rud.. 1809a. 429. for Fasc. *milvi* Gmelin.—1809: Dist.
- jaleonis palumbæ* Baird. 1853a. 47.—1853: *Amphist.* [1853: Holost. *macrocephalum*.]
- jaleonis palumbarii* Rud.. 1819a. 88. syn. of *macrocephalum* (Amphist.).
- jaleonis palumbi* Viborg. 1795. 243.—1795: *Strigea*. 1809: *Amphist.*
- jaleonis peregrini* Rud.. 1819a. 92. t. h. *Falco peregrinus*: Berlin, Germany.—1819: *Amphist.*
- jaleonis rufi* Rud.. 1819a. 119. t. h. *Falco rufus*: Cat. Ent. Vien.—1819: Dist. [1850: D. *lineola*.]
- jaleonum* Dies.. 1858. 322. t. h. *Falco nisus*, *F. rufus*: Ireland.—1858: Holost.
- fallax* Rud.. 1819a. 117. t. h. *Uranoscopus scaber*: Naples.—1819: Dist. (Echinost.). 1860: Echinost. 1899: *Anoikost.* 1901: *Anisogaster* (type). 1902: *Anisocladium* (type).
- fallax* Dies.. 1850a. 297. Cerc. VII Baer. C. *echinata* Sieb.. Dist. *pacifica* Steenstrup, renamed: t. h. *Paludina vivipara*: *Regiomontii* (Baer).—1850: Cerc. 1855: C. (Eucerc.). [1858: Dist. *militare*.] 1858: C. (Gymnocephala).
- fallax* Wagener. 1857. 55. t. h. *Cyprinus erythrophthalmus*, *C. rutilus*.—1857: *Dactylogyrus*.

- farionis* Mueller, 1784, 91, t. h. *Salmo fario*; [1788], 42.—[1788]: Fasc. [1814: Dist. laureatum.] 1891: Dist.
- fasciata* Haswell, 1887a, 284, t. h. *Astacopsis serratus*; N. S. Wales.—1887: Temnocephala.
- fasciatum* Rud., 1819a, 97, t. h. *Labrus tinca*, *L. merops*, *Perca marina*; Naples.—1819: Dist. 1886: D. (*Dicrocoelium*). [1899: *Creadiinae*.] 1901: *Allocreadium*. 1902: *Helicometra*. 1902: *Loborchis*.
- fasciatus* Stoss., 1902, 25, t. h. *Numenius arquatus*; locality?—1902: *Hæmatotrephus*.
- fascicularis* Villot, 1875, 480, t. h. *Nassa reticulata*; Roscoff.—1875: Cerc.
- fasciolaris* Mueller, 1788.—1788: *Hirudo*. [1790: Fasc. *anatis*.] [1850: Dist. *ovatum*.]
- fastosum* Braun, 1901g, 896, t. h. *Caprimulgus* sp., *Squatarola helvetica*; Brazil.—1901: *Stomylotrema*.
- felineum* Rivolta, 1884, 20, t. h. *Felis catus* dom.; Italy.—1884: Dist. 1893: D. (*Dicrocoelium*). 1895: *Opisthorchis* (type). 1896: *Dicrocoelium*. [1896: *Prosthometra*, type.] 1898: *Campula*. —: Dist. (*Opisthorchis*).
- felineum* of Ward, 1895, 152, see *pseudofelineum*.—1895: Dist.
- felinum* Ratz, 1896, 67, misprint for *felineum* (Dist.).
- felleum falconis chrysaëti* Viborg, 1795, 243.—1795: Dist. [1850: D. *crassiusculum*.]
- fellis* Olss., 1868, 44, t. h. *Anarhichas lupus*.—1868: Dist. 1886: D. (*Brachylaimus*).
- ferocis* Mont., 1888a, 14, apparently for *ferox* (Dist.).
- ferox* Rud., 1795a, 15, t. h. *Ardea ciconia*; Greifswald.—1795: Fasc. 1803: Dist. 1809: D. (*Echinost.*). 1828: *Echinost.*
- ferruginosum* Linst., 1877, 184, t. h. *Barbus fluviatilis*.—1877: Dist. [1894: D. *perlutum*.]
- ferrum-equinum* Dies., 1836d, 238, t. h. *Cataphractus murica*, C. corome; Cuyaba and Matogrosso, Brazil.—1836: *Amphist.*
- festæ* Borelli, 1898, 6 pp.—1898: Plan.
- filaria* Bosc, 1802a, 261.—1802: Plan.
- flarina* Ben., 1858 or 1861, 108, t. h. *Sciaena aquila*; Ostend.—1858: *Nematobothrium* (type). 1859: *Monost.*
- filicolle* Rud., 1819a, 85, t. h. *Brama raji*; Naples.—1819: *Monost.* (*Monost.*). 1858: Dist. 1860: *Köllikeria* (type). 1886: D. (*Köllikeria*).
- filicolle* Mont., 1893, 150.—1893: *Didymozoon*.
- filiferum* Sars, 1885, 222, t. h. *Nematoscelis megalops*, *Thysanoëssa gregaria*; South Atlantic Ocean.—1885: Dist.
- filiforme* Rud., 1819a, 112, t. h. *Cepola tænia*, at Arimini; C. *rubescens*.—1819: Dist.
- filigerum* Rud., teste Risso, 1826, 262, de la castagnolle.—1826: *Monost.*
- filum* Duj., 1845a, 418, t. h. *moineaux*; Rennes.—1845: Dist. (*Brachylaimus*).
- filum* Duj., 1845a, 362, t. h. *Scomber scombrus*; Rennes.—1845: *Monost.*
- fimbriata* Goeze, 1782a, 180.—1782: Fasc. [1810: *Caryophyllæus mutabilis*.]
- fimbriatum* Busch, 1851, 99, t. h. *Sagitta*.—1851: Dist.
- fimbriatum* Mol., 1859, 819, t. h. *Anguilla vulgaris*; Batavii.—1859: *Gasterost.*
- fimbriatum* Sieb., 1848, v. 1, 129, t. h. *Perca fluviatilis*, *Lucioperca*; Europe.—1848: *Gasterost.* (type).
- fintæ* Ben. & Hesse, 1863, 1864, 101, t. h. *Alosa finta*.—1863: *Ophicotyle* (type). 1879: *Octobothrium*.
- fintæ* Mont., 1888a, 13.—1888: *Glossocotyle*.
- fissa* Bory de St. Vincent, 1824a, 456.—1824: *Histrionella*. [1850: *Malleolus furcatus*.]
- fissicanda* Moul., 1856a, 109, for *fissicauda* (Cerc.).
- fissicauda* Dies., 1858d, 243, *cristata* Valette renamed.—1858: *Lophocerc.* (type).
- fissicauda* Dies., 1858d, 269, *ocellata* (Cerc.) renamed.—*Histrionellina*.
- fissicauda* La Valette, 1855, 21, t. h. *Limnæus stagnalis*.—1855: Cerc. 1858: C. (*Schizocerca*).
- fissicaudata* Mont., 1888, 196, for *fissicauda* (Cerc.).
- flaccida* Mueller, 1774, 57, free form.—1774: Fasc. 1776: Plan.
- flagellatum* Moniez, 1891, 27, t. h. *Gymnotus electricus*.—1891: Dist.
- flava* Stoss., 1903, 373, t. h. *Centropristis hepatus*; Triest.—1903: *Helicometra*,

- flava* La Valette, 1855, 24, C. ephemera Nitzsch renamed.—1855: Cerc. 1858: Glenocerc. 1858: Monost. [See flavum.]
- flavescens* Ben., 1870, 47, t. h. Gobius jozo, G. minutus.—1870: Dist. 1886: D. (Brachylaimus).
- flavescens* Pag., 1857, 34, t. h. Bulimus radiatus; Heidelberg.—1857: Dist. 1858: Cercariaeum.
- flavocinctum* Linst., 1879, 183, t. h. Anguis fragilis.—1879: Dist. [1897: D. crassicolle.]
- flavopunctata* Par., 1894, 703, for fulvopunctata (Cerc.).
- flavum* Mehlis, 1831, 172, t. h. Anas mollissima, A. fusca, A. marila, A. fuligula.—1831: Monost. 1858: Glenocerc. 1902: Typhlocœlum (type). [See flava.]
- flexum* Lint., 1892, 98, t. h. Oedemia americana.—1892: Dist. 1899: Echinost.
- flexuosum* Rud., 1808a, 346; 1809a, 50, t. h. Talpa europæa.—1809: Dist. 1845: D. (Dicrocœlium). 1899: Omphalometra (type).
- fodicans* Braun, 1901g, 896, t. h. Sterna nigra; Vien. Mus. no. 631.—1901: Cathæmasia.
- fecundum* Lint., 1900, 269, t. h. Lopholatilus chamæleonticeps.—1900: Dist.
- fætorii* Linst., 1876, 1, t. h. Fætorius putorius.—1876: Tetracotyle.
- foliaceum* Mol., 1859, 288, t. h. Gobius paganellus; Batavii.—1859: Dist.
- foliaceum* Rud., 1819a, 83, t. h. Accipenser sturio; Arimini.—1819: Monost. (Monost.). 1859: Amphilina.
- foliaceum* Goto, 1894a, 248, host unknown.—1894: Trist.
- foliatum* Lint., 1898, 532, t. h. Mola mola.—1898: Dist. 1902: Orophocotyle. 1904: Accacœlium.
- folii* Looss, 1894a, 256, Dist. duplicatum.—1894: Cerc.
- foliiforme* Crep., 1846, 149, t. h. Squalus griseus.—1846: Dist.
- foliiforme* Braun, 1899g, 490, t. h. Ardea purpurea; Italy.—1899: Clinost.
- folium* Olfers, 1816, 45, t. h. Esox lucius.—1816: Dist. [1894: Rhopalocerca tardigrada, type.] 1899: Spathidium (type). 1899: Phyllodist. (type). [1906: Gorgoderina.]
- forceps* Leuck. (1857), 26.—1857: Dactylogyrus.
- forcipata* Mueller, 1786, 134, in aqua palustri rarissime.—1786: Cerc. 1827: Dicranophorus.
- formosum* Sons., 1890, 134, t. h. Grus cinerea.—1890: Dist. 1892: Polyorchis.
- formosum* Staff., 1904, 486, t. h. Hippoglossus hippoglossus; Canada.—1904: Steganoderma (type).
- formosum* Pratt, 1903, 34, t. h. a frog.—1903: Ostiolium (type).
- fractum* Rud., 1819a, 107, t. h. Sparus salpa; Naples.—1819: Dist. 1886: D. (Podocotyle). 1898: Podocotyle.
- fragile* Lint., 1900, 269, t. h. Mola mola.—1900: Dist. 1904: Stenocollum (type).
- fragile* Olss., 1869, 4, t. h. Raja batis; Norway.—1869: Microbothrium. 1890: Pseudocotyle. [1897: Micropharynx parasitica, type.]
- fraterculus* Odhn., 1905, 343, t. h. Phoca barbata, Odobenus rosmarus; Spitzbergen.—1905: Orthosplanchnus.
- fraterna* Odhn., 1902, 19, t. h. Harelda glacialis.—1902: Cyathocotyle.
- fraternum* Looss, 1894, 42, t. h. Pelecanus onocrotalus; Egypt.—1894: Dist. 1899: Cœnogonimus. 1899: Cotylogonimus. 1902: Heterophyes.
- fratrichii* Kowal., 1894, 3.—1894: Dist. 1894: Echinost. [1898: E. conoideum.]
- fulgopunctata* Braun, 1893a, 831 for fulvopunctata (Cerc.).
- fuligula ferina* Dies., 1858e, 355, based on Bellingham, 1844, v. 13, 430, t. h. Anas ferina; Ireland.—1855: Dist. [1892: Echinost. echinatum.]
- fulva* Bosc., 1802a, 257.—1802: Plan.
- fulvopunctata* Erc., 1881 or 1882, see Par., 1894, 161, t. h. Bythinia tentaculata; Bologna.—Cerc.
- fulvum* Rud., 1819a, 98, t. h. Gadus molva at Naples; G. mediterraneus.—1819: Dist.
- fulvum* Duj., 1843, 340, t. h. Sorex.—1843: Brachylaima.
- fureata* Nitzsch, 1817, 49.—1817: Cerc. 1838: Malleolus (type).
- furecata* Bremser, in Rud., 1819a, 107, t. h. Mullus surmuletus, M. rubescens at Arimini; Gadus molva at Naples.—1819: Dist. 1828: Fasc. 1845: D. (Podocotyle). 1898: Podocotyle.

- [*furcata* Eichwald, 1829a, 247.—Cerc.]
furcigerum Olss., 1868, 26, t. h. *Pleuronectes limanda*, *P. limandoides*.—1868: Dist.
 1886: D. (*Dicrocœlium*). 1904: *Leioderma* (type). 1905: *Steringophorus* (type).
fusca Bosc., 1802, 271, in dorade.—1802: Fasc. 1885: Dist.
 [*fusca* Sluiter, 1900, 7, (Dist.), a tunicate.]
fusca Pallas, 1774, 21, in aq. stag.; Europe.—1774: Fasc.
fusca Fabricius, 1798, 58, syn. Fasc. *angulata*.—1798: Plan.
 [*fusca*, (Diplost.) mammal.]
fuscatum Rud., 1819a, 101, t. h. *Tetrao coturnix*; Ancona.—1819: Dist. —: D.
 (*Dicrocœlium*). 1902: Harmost.
fuscescens Rud., 1819a, 113, t. h. *Sparus dentex*; Arimini.—1819: Dist. 1886: D.
 (*Dicrocœlium*).
fuscescens Fabricius, 1798, 58.—1798: Plan.
fusiforme Luehe, 1901, 476, t. h. *Conger conger*; Coll. Berlin.—1901: *Lecithochirium*.
fusiforme Zed., 1800a, 163, Fasc. *upupæ* Schrank, 1790, renamed.—1800: Dist. [1850:
 D. *involutum*.]
fusiformis Goto, 1894a, 192, t. h. *Centronotus rubulosus*; Japan.—1894: *Microcotyle*.
gadi Dies., 1855, 64, based on Bellingham, 1844, 428, t. h. *Gadus æglefinus*; Ireland.—
 1855: Dist.
gadi æglefini Dies., 1858e, 341, based on Bellingham, 1844, 428; renamed *anonymum*
 1858e, 341.—1858: Dist.
gadorum Ben., 1870, 60, t. h. *Merlangus carbonarius*.—1870: *Echinost*.
gadorum Rathke, 1799, 68.—1799: *Hydatula*. 1851: *Nematoideum*. 1878: *Gasterost*.
galatosomum Leidy, 1888i, 166, t. h. *Labrax lineatus*; U. S. A.—1888: Dist.
galeatum Rud., 1819a, 86, t. h. *Centronotus glaucus*; Naples.—1819: *Monost*.
 (*Monost*.). 1898: *Gasterost*.
gammari Rentsch, 1860, 35, t. h. *Gammarus ornatus*.—1860: Dist.
gammari Linst., 1877, 186, t. h. *Gammarus pulex*.—1877: Dist.
gammari ornati Rentsch, 1860, pl. 12, fig. 2, see *gammari* (Dist.).
garzettæ MacCallum, 1904, 541, t. h. *Garzetta nigripes* Temm.—1904: *Echinost*.
gastrocolum Leidy, 1891a, 414, t. h. *Trichiurus lepturus*; U. S. A.—1891: Dist.
gastroporus Luehe, 1901p, 166, t. h. *Rana cyanophlyctis*; India.—1901: *Pleurogenes*.
gelatinosum Rud., 1819a, 102, t. h. *Testudo mydas*; Arimini.—1819: Dist. 1895: D.
 (*Dicrocœlium*). 1901: *Rhytidodes* (type).
gelatinosum of Poir., see *poirieri*.
gemellatum Mont., 1892, 716, for *gemellum* (*Monost*.).
gemellum Steenstrup, 1860, 113, t. h. *Sphyræna baracuda*.—1860: *Monost*.
geminum Bremser in Schmalz, 1831, 13, for *M. faba*.—1831: *Monost*. [1853: *M. faba*.]
geminum Looss, 1896, 50, t. h. *Milvus parasiticus*; Cairo.—1896: Dist. 1898: *Opis-*
thorchis.
genata Looss, 1907, 488, t. h. *Pelecanus onocrotalus*; Egypt.—1907: *Pygidiopsis* (type).
geniculatum Dies., 1850a, 373, D. *physophoræ* renamed, t. h. *Physophora tetrasticha*;
 Naples.—1850: Dist.
genu Rud., 1819a, 107, t. h. *Labrus luscus*; Naples.—1819: Dist. 1901: *Allocreadium*.
gesserensis Bosc, 1802a, 262.—1802: Plan.
giardi Stoss., 1898, 50, for *giardii* (Dist.).
giardii Stoss., 1889, 25, t. h. *Naucrates ductor*; Triest.—1889: Dist.
gibba Mueller, 1773, 120, in infusione *jungermanniaë tamarisci*.—1773: Cerc. 1827:
Macrocerus.
gibba Fil., 1854b, 266, t. h. *Lymnæus pereger*.—1854: Cerc. 1855: C. (*Xiphidiocerc*.).
 1858: C. (*Acanthocephala*).
gibbosa Rud., 1802b, 81, t. h. *Esox belone*.—1802: Fasc. 1809: Dist. 1845: D.
 (*Podocotyle*). 1901: *Lecithaster*.
gibbum Mehlis in Crep., 1846, 137, t. h. *Fulica atra*.—1846: *Monost*.
giganteum Dies., 1858e, 331, *gigantica* Cobbold, 1855, renamed.—1858: Dist. 1892:
Cladocœlium.

- giganteum* Dies., 1836d, 238, pl. 22, figs. 5-6, t. h. *Dicotyles albirostris* at Nas Frechas and Caiçara, and *D. torquatus* at Matogrosso; Brazil.—1836: Amphist. 1901: *Cladorchis* (*Stichorchis*, type).
- gigantica* Cobbold, 1855a, 262, t. h. *Giraffa camelopardalis*.—1855: Fasc.
- gigantocotyle* Brand., in Otto, 1896, 103, t. h. *Hippopotamus*.—1896: Amphist.
- gigas* Nardo, 1827, 68, t. h. *Proctostegus proctostegus*.—1827: Dist.
- glabrum* Crep., 1846, 148, t. h. *Salamandra maculosa*.—1846: Dist.
- glandulosum* Looss, 1896, 64, t. h. *Taphosus nudiventris*; Ghizeh.—1896: Dist. 1899: *Lecithodendrium*.
- glauca* Mueller, 1774, 60.—1774: Fasc. 1787: Plan.
- glauçi* Bergh, 1884, 18, t. h. *Glaucus atlanticus*, etc.—1884: Dist.
- globicaudatum* Crep., 1849a, 64, for *globocaudatum* (Dist.).
- globifera* Lamarck, 1816, 182, for *globipora*.—1816: Fasc. 1816: Dist.
- globiparum* Ehrenberg, 1837b, Feb., 199, for *globiporum* (Dist.).
- globipora* Rud., 1802b, 72, t. h. *Cyprinus erythrophthalmus*.—1802: Fasc. 1809: Dist. 1845: D. (*Brachylaimus*). 1886: D. (*Dicrocoelium*). 1898: *Sphærost.* (type).
- globipora* Erc., 1881 or 1882, see Par., 1894, 164, t. h. *Bythinia tentaculata*; Bologna.—Cerc.
- globiporum tinæ* Rud., see Dies., 1850a, 395.—1850: Dist. [1850: D. *perlutum*.]
- globocaudatum* Crep., 1825, 49, t. h. *Corvus cornix*.—1825: Dist. 1845: D. (*Brachylaimus*).
- globosum* Ben., 1858a, 1861a, 193, quotes Siebold.—1858: Dist. [See also D. *orbiculare*.]
- globulus* Rud., 1814a, 104, t. h. *Anas fuligula*; Greifswald.—1814: Dist. [1902: *Psilost.*]
- glottoides* Klein, 1905, 72, t. h. *Rana hexadactyla*.—1905: Ganeo (type).
- gobii* Rentsch, 1860, 43, t. h. *Gobius minutus*.—1860: Dist.
- gobii* Stoss., 1883, 116, t. h. *Gobius jozo*, in int.; Triest.—1883: Dist. 1886: D. (*Dicrocoelium*). 1902: *Loborchis*. 1904: *Helicometra*.
- gobii* Stoss., 1898, 58, encysted on intest. of *Gobius jozo*; Triest, Austria.—1898: *Agamodist*.
- gobii minuti* Rentsch, 1860, for *gobii* Rentsch (Dist.).
- goliath* Ben., 1858b, 95, t. h. *Balaena*.—1858: Dist. [1902: *Lecithodesmus* (?type).] 1905: *Lecithodesmus* (type).
- goliath* of Lœnberg, 1891, 71.—Dist. [1902: *Lecithodesmus* (type).]
- gonocephala* Ackermann, 1905, 137.—1905: Plan.
- gorgoderæ cygnoides* Kowal., 1904, 24, in *Cyclas cornea*; Dublany.—1904: Cerc.
- loossi* (Cerc.) Ssintizin, 1905, see under *loossi*.
- pagenstecheri* (Cerc.) Ssintizin, 1905, see under *pagenstecheri*.
- varsoviensis* (Cerc.) Ssintizin, 1905, see under *varsoviensis*.
- vitelliloba* (Cerc.) Ssintizin, 1905, see under *vitelliloba*.
- gorgon* Lint., 1905, 327, t. h. *Seriola lalandi*; Beaufort, N. C.—1905: *Gasterost*.
- gracile* Fischder., 1901a, 368, t. h. *Bos kerabau* from Ceylon; *Portax tragocamelus*.—1901: *Paramphist*.
- gracile* Leidy, 1856, 45, t. h. *Pomotis vulgaris*, *Esox*.—1856: *Clinost.* (type). 1858: Dist.
- gracile* Rud., 1809a, 326, based on Acharius, 1790, 55, t. h. *Salmo eperlanus*.—1809: *Monost.* (*Hypost.*).
- gracile* Rud., 1819a, 89, t. h. *Mergus merganser*, *M. albellus*; Mus. Vienn.—1819: Amphist. 1845: *Holost.*
- graciliscens* Rud., 1819a, 111, t. h. *Lophius piscatorius*; Triest.—1819: Dist. 1852: *Gasterost*. 1858: *Rhipidocotyle* (?type). [*Bucephalus haimeanus*.]
- gracilis* Fil., 1837, 336, t. h. *Planorbis nitidus*; Italy.—1837: *Redia* (type). [1855: *Diplocotyle mutabilis*.]
- gracilis* Kath., 1894a, 129, t. h. see p. 278.—1894: *Gyrodactylus*.
- gracilis* La Valette, 1855, 20, t. h. *Planorbis corneus*.—1855: Cerc. 1858: C. (*Schizocerca*).
- gracilis* Wedl, 1861, 480, t. h. *Hydrocyon dentex*.—1861: *Dactylogyrus*.

- gracilis* Looss, 1901e, 660, t. h. *Uranoscopus scaber*; Triest.—1901: *Anisogaster*.
- grande* Dies., 1839a, 237, t. h. *Chelys*, *Phrynops*, *Peltocephalus*, *Podocnemis*, *Rhinemys*; Brazil.—1839: *Amphist*.
- grande* Rud., 1819a, 676–677, t. h. *Platalea ajaja*; Brazil.—1819: *Dist*. 1902: *Mesaulus* (type).
- grande* Dies., 1850a, 307, t. h. *Ardea leuce*, *A. agami*; Brazil.—1850: *Diplost*. 1890: *Hemist*. [1890: *H. macropterum*.]
- grandiporum* Rud., 1819a, 110, t. h. *Muraena helena*; Naples.—1819: *Dist*. 1886: *D. (Apoblema)*. 1889: *Apoblema*. 1899: *Hemiurus*. 1901: *Lecithochirium*.
- granulosum* Looss, 1907, 483, t. h. *Vesperugo kuhli*; Cairo, Egypt.—1907: *Lecithodendrium*.
- granulum* Rud., 1809a, 394, includes *Fasc. scorpii* Mueller; t. h. *Cottus scorpius*.—1809: *Dist*.
- grassum* Biermer, 1863a, 395, for *crassum* (*Dist*.).
- gregarius* Looss, 1896b, 5, t. h. Egyptian buffalo; Egypt.—1896: *Gastrothylax*.
- grisea* Cerf., 1899a, 376, t. h. *Hexacanthus griseus*.—1899: *Squalonchocotyle*.
- grisea* Bosc, 1802, 257.—1802: *Plan*.
- granlandicus* Levin., 1881a, 78, t. h. *Cottus scorpius*; Egedesminde.—1881: *Gyrodactylus*.
- grossa* Mueller, 1774, 67.—1774: *Fasc*. 1776: *Plan*.
- grossa* Mueller, 1788, 21.—1788: *Hirudo*. 1865: *Phylline*. 1828: *Malacobdella*.
- grossa* Goto, 1894a, 220, t. h. *Thynnus* sp.; Misaki, Japan.—1894: *Hexacotyle*.
- gruis* Gmelin, 1790a, 3055, t. h. *Grus*.—1790: *Fasc*. 1803: *Dist*. [1850: *D. echinatum*.]
- guernei* Moniez, 1891, 148, t. h. *Thynnus alalonga*; Europe.—1891: *Nematobothrium*.
- gulo* Mueller, 1774, 56, free form.—1774: *Fasc*. 1776: *Plan*.
- gulosum* Lint., 1901, 415, t. h. *Rhombus triacanthus*.—1901: *Dist*.
- gurtii* Cobbold, 1860a, 42, t. h. *Lacerta agilis*.—1860: *Monost*.
- gurnardi* Ben. & Hesse, 1863, 1864, 103, t. h. *Trigla gurnardus*.—1863: *Phyllocotyle* (type).
- gurnardi* Ben. & Hesse, 1863, 1864, 96, t. h. *Trigla gurnardus*.—1863: *Platycotyle* (type).
- [*gutturialis* (*Bucephalus*), reptile.]
- gyrini* Linst., 1884, 141, t. h. tadpole of *Rana temporaria*.—1884: *Dist*.
- gyrinus* Mueller, 1773, 64, in *infusioni animali raro*.—1773: *Cerc*. 1827: *Macrocerus*.
- hæmatobe* Ben., 1858a, 1861a, 219, for *hæmatobium* (*Dist*.).
- hæmatobia crassa*, see *crassa*.—1895: *Bilharzia*.
- hæmatobia magna* Kowal., 1895, see *magna*.—1895: *Bilharzia*.
- hæmatobium* Bilharz, 1852a, 72, t. h. *Homo*; Egypt.—1852: *Dist*. 1858: *Schistosoma* (type). 1858: *Gynæcophorus* (type). 1859: *Bilharzia* (type). 1860: *Thecosoma* (type). 1886: *D. (Bilharzia)*. [*Hæmatobium*.]
- hæmatobium venæ portarum* Høek or Pag., 1859, 42, for *hæmatobium* (*Dist*.).
- hæmatobium hominis* Dies., 1855, 63, for *hæmatobium*.—1855: *Dist*. [1895: *Bilharzia*.]
- hæmatoma* Braun, 1891d, 426, see *hematoma* (*Dist*.).
- haimeanus* Lacaze-Duthiers, 1854a, 294, t. h. *Ostrea edulis*, *Cardium rusticum*; Baleares, Isles, Mahon, Cete.—1854: *Bucephalus*. 1855: *B. (Bucephalopsis)*, (type). 1856: *Cerc*. [*Gasterost. grascilescens*.]
- haimejanus* Erc., 1881e, 41, 87, for *haimeanus* (*Bucephalus* = *Cerc*.).
- halecis* Gmelin, 1790a, 3058, based on Leeuwenhoek, *epist*. 97, 47, t. h. *halece*.—1790: *Fasc*. 1803: *Dist*. [1809: *Dist. ocreatum*.]
- halosauri* Bell, 1887, 116, t. h. *Halosaurus macrochis*; Cape St. Vincent. 1887: *Dist*.
- hamatum* Rathke, 1843, 238, “for *Phylline hippoglossi*,” on *Pleuronectes hippoglossus*; Europe.—1843: *Trist*. [1850: *Phylline hippoglossi*.] [1858: *Epibdella hippoglossi*.] [1879: *Trist. hippoglossi*.]
- hæmatobia* Kowal., 1895g, 58, for *hæmatobia* (*Bilharzia*).
- harengi* Ben. & Hesse, 1863, 1864, 98, t. h. *Clupea harengus*.—1863: *Octocotyle*. 1879: *Octobothrium*. 1889: *Octoplectanum*.
- hassalli* Goto, 1895, 352, t. h. *Kinosternon pennsylvanicum*; Md., U. S. A.—1895: *Polyst.*

- hasta* Looss, 1902m, 686, t. h. *Chelone mydas*; Egypt.—1902: Octangium.
- hawkesi* Sons., 1895, 187, for *hawkesii*, Amphist. (Pseudodiscus).
- hawkesi* Braun, 1893d, 466, for *hawkesii* (Amphist.).
- hawkesii* Cobbold, 1875n, 818, t. h. *Elephas indicus*; India.—1875: Amphist. 1895: A. (Pseudodiscus).
- helicis* Meckel [? see *helicis pomatiae*]. Cercariæum. [1899: Dist. leptosomum.]
- helicis* Leidy, 1847, 220, t. h. *Helix alternata*.—1847: Dist. [1855: Cercariæum *helicis alternatae*.] [1858: Cercariæum vagans.]
- helicis alternatae* Dies., 1855a, 389, Dist. *helicis* Leidy 1847 renamed.—1855: Cercariæum.
- helicis asperæ* Dies., 1850a, 302, t. h. *Helix aspera*, based on Duj., 1845a, 472.—1850: Heterost. 1850: Dist. 1855: Cercariæum.
- helicis aspersæ* Dies., 1855a, 398, for *helicis asperæ*.—1855: Heterost. 1855: Cercariæum. 1856: Cerc.
- helicis carthusianellæ* Par., 1894, 164, t. h. *Helix carthusianella*; Bologna.—1894: Cerc.
- helicis maculosæ* Par., 1894, 164, t. h. *Helix maculosa*; Bologna.—1894: Cerc.
- helicis pomatiæ* Dies., 1850a, 303, based on Meckel, 1846, 5, t. h. *Helix pomatia*.—1850: Heterost. 1850: Dist. 1855: Cercariæum.
- helicis viviparæ* Dies., 1850a, 298, t. h. *Paludina vivipara*; Vilnæ.—1850: Cerc.
- helluo* Mueller, 1774, 64.—1774: Fasc. 1787: Planaria.
- helostomatis* MacCallum, 1905, 673, t. h. *Helostoma temminckii*; Palembang, Sumatra.—1905: Cladorchis.
- heluans* Braun, 1899g, 490, t. h. *Ardea cœrulea*, *Nycticorax gardeni*; Rio de Janeiro.—1899: Clinost.
- hematoma* Sempurn, 1890, 596, in Homo; Cuba.—1890: Dist.
- hemicyclum* Mol., 1859, 829, t. h. *Belone acus*; Batavii.—1859: Dist. 1886: D. (Echinost.).
- hendorffii* Lint., 1889, 163, t. h. *Coryphæna hippurus*; Caleta buena, Chile.—1889: Phylline. 1894: Epibdella. 1902: E. (Phylline). 1903: E. (Benedenia).
- hendorffi* Mont., 1902, 144, for *hendorffii* (Epibdella).
- hepatica* Rœderer, 1762, 537, see Fasc. muris.
- hepatica* Linn., 1758a, 648, t. h. *Ovis aries*; Europe.—1758: Fasc. (type). —: Dist. (type). 1836: Dyst. 1845: Dist. (Cladocœlium, type). 1845: Fasciolaria. 1863: Dist. (Fasc.). 1892: Cladocœlium (type).
- hepatica angusta* Rail., 1895, 338, t. h. cattle; St. Louis, Senegal, Africa.—1895: Fasc. 1898: Dist.
- hepatica apri* Gmelin, 1790a, 3054, based on Le Clerc, 1715a, 119; t. h. *Susscrofa*.—1790: Fasc.
- hepatica boum* Gmelin, 1790a, 3054, t. h. *Bos taurus*; Europe.—1790: Fasc.
- hepatica cavæ* Sons., 1896, 112, t. h. *Cavia*.—1896: Fasc.
- hepatica cervi* Gmelin, 1790a, 3054, t. h. *Cervus*.—1790: Fasc.
- hepatica equi* Gmelin, 1790a, 3054, t. h. *Equus caballus*.—1790: Fasc.
- hepatica ovata plana* Buchholzii Jærdens, 1802, 64.—1802: Fasc. [Dicrocœlium lanceatum.]
- hepatica porcorum* Gmelin, 1790a, 3054, t. h. *Sus scrofa* dom.; Europe.—1790: Fasc.
- hepaticum* Betegh, in Gomy, 1898, 328, for “amphistome hépatique” = A. explanatum.—1898: Amphist.
- hepaticum ægyptiaca* Looss, 1896b, 33, t. h. buffles, bœufs, moutons; Egypt.—1896: Dist. 1898: Fasc.
- hepaticum (perniciosum)* Taylor, 1884, 52, see *hepatis perniciosum*.—1884: Dist.
- hepaticum suis* Willach, 1893, 40, t. h. *Sus scrofa* dom.—1893: Monost. [1894: Cysticercus tenuicollis.]
- hepatis endemicum* Bælz, 1883, 234, t. h. Homo; Japan.—1883: Dist. [1907: Clonorchis.]
- hepatis innocuum* Caræes, 1888a, 41, for h. innocuum (Dist.).
- hepatis innocuum* Bælz, 1883, 236, t. h. Homo; Japan.—1883: Dist. [1907: Clonorchis sinensis.]

- hepatitis perniciosum* Baelz, 1883, 234, t. h. Homo; Japan.—1883: Dist. [1907: *Clo-norchis endemicum*.]
- hepatium* Rivolta, 1884, 27, for *hepaticum* (Dist.).
- herdmani* Shipley & Hornell, 1904, 78, t. h. *Margaritifera vulgaris*; Ceylon.—1904: Musalia (type).
- heteracanthus* Massa, 1903, see *heteracanthus* (Trochopus).
- heteracanthus* Massa, 1903, 252, t. h. *Trigla corax*.—1903: Trochopus.
- heterobranchi* Wedl, 1861, 478, t. h. *Heterobranchus anguillaris*; Egypt.—1861: Monocerca, type.
- heterocerca* Goto, 1894a, 197, t. h. *Seriola quinqueradiata*; Hiroshima (Ujina Port), Mitsugahama, and Mitsaki, Japan.—1894: Axine.
- heteroclitum* Mol., 1859, 289, t. h. *Perdix coturnix*; Batavii.—1859: Dist. 1892: Mesogonimus. 1899: Clinost.
- heterocotyle* Ben., 1870, 67, t. h. *Clupea sprattus*.—1870: Octost. 1879: Octobothrium. 1885: Octoplectanum.
- heterolecithodes* Braun, 1899, 3, t. h. *Porphyrio porphyrio*; Madagascar, Africa.—1899: Dist. 1899: Athesmia (type).
- heteromorphum* Crep., 1837a, 317, t. h. *Trigonocephalus* sp.—1837: Dist.
- heterophyes* Perroncito, 1879, 6, for *heterophyes* (Dist.).
- heterophyes* Sieb., 1853, 62, t. h. Homo; Egypt.—1853: Dist. 1866: [Heterophyes, type.] 1858: Dicrocoelium. 1860: Fasc. 1890: Mesogonimus. 1899: Cænogonimus (type). 1899: Cotylogonimus (type). 1900: Heterophyes (type).
- heterophyes hominis* Dies., 1855, 64, for *heterophyes*.—1855: Dist.
- heteroporum* Duj., 1845a, 402, t. h. *Vespertilio pipistrellus*; Rennes.—1845: Dist. (Brachycoelium). 1899: Pycnopus (type). 1899: Lecithodendrium.
- heterostomum* Rud., 1809a, 50, t. h. *Ardea purpurea*; t. l. apparently Europe.—1809: Dist. 1845: Dist. (Dicrocoelium). 1899: Clinost. 1899: Dicrocoelium.
- heurteli* Poir., 1885, 9, t. h. *Thynnus vulgaris*.—1885: Dist.
- hexacantha* Par. & Perugia, 1889, 740, t. h. *Serranus gigas*; Genova.—1889: Placunella. 1906: Trochopus.
- hians* Rud., 1809a, 359, t. h. *Ardea nigra*; Greifswald.—1809: Dist. 1845: Dist. (Dicrocoelium). 1899: Cathæmasia (type).
- hiatulæ* Goto, 1899a, 281, t. h. *Hiatula onitis*; Newport, R. I.—1899: Microcotyle.
- hillii* Johnston, 1904, 110, t. h. *Larus novæ hollandiæ*.—1904: Holost.
- himantopodis* Rud., 1819a, 87, t. h. *Charadrius himantopus*; Cat. Mus. Vien.—1819: Monost.
- hippocreps* Dies., 1850a, 324, t. h. *Hydrochærus capybara*; Brazil. 1850: Monost.
- hippoglossi* Oken, see Tasch., 1878, 568.—1878: Trist. 1879: (Epibdella). 1899: Phyllonella.
- hippoglossi pleuronectes* Mont., 1889, 117 (Epibdella) see Trist. uncinatum.
- hippoglossi* Mueller, 1776a, 220 t. h. *Hippoglossus*; Denmark.—1776: Hirudo. 1815: Phylline (type?). 1828: Epibdella (type). 1878: Nitzschia. 1899: Phyllonella. 1905: Phyllonella (Epidella). [Entobdella.]
- hippoglossii* Ben., 1858a, 1861a, 21 for *hippoglossi* Mueller, 1776.—1858: Epibdella. 1858: Nitzschia. 1858: Nitchia. [1878: Trist.]
- hippodii* Vogt, 1854, 97, t. h. *Hippodius leteus*; Quoy et Gaimard, Mediterranean.—1854: Dist.
- hirudinis* Brand., 1888a, 13, for *hirudinis* (Dist.).
- hirsutum* Looss, 1896b, 68, t. h. caméléon; Alexandria, Egypt.—1896: Dist. 1899: Lecithodendrium.
- hirta* Mueller, 1786, 128, in aqua marina bis tantum.—1786: Cerc. 1827: Coleps, type.
- hirudinaceum* Bartels, 1834, 61, t. h. *Salmo lavaretus*; St. Petersburg.—1834: Octobothrium. 1845: Octobothrium (Cyclocotyle). [1850: Discocotyle.] 1858: Placoplectanum (Discocotyle).
- hirudinis* Mont., 1888, 10, for *hirudinis* (Echinella).
- hirudinis* Henle, see Dies, 1850a, 418, t. h. *Hirudo vulgaris*.—1850: Dist. [1850: Hepast. hirudinum.]
- hirudinum* Zed., 1800a, xvii, 163, for *hirudinis* Frœlich.—1800: Dist. [1850: D. maculosus.] [1902: Plagiorchis maculosus].

- hirudinum* Schomburgk, 1844, 136, includes *hirudinis*, t. h. *Nephelis vulgaris*, Clepsine complanatum.—1844: Heptost. (type). [Heptast.]
- hirudo* Dies., 1836d, 238, t. h. *Palamedea cornuta*; Engenho do Cap Gama, Brazil.—1836: Amphist.
- hirudo* Johnston, 1846a, 437.—Planaria.
- hirundinaceum* Dies., 1850a, 424, for *hirudinaceum* (Discocotyle).
- hirundinis* Frœlich, 1791, 75, t. h. *Thurmschwalbe*.—1791: Fasc. 1800: Dist.
- hirundinis* Ben. & Hesse, 1863, 1864, 94, t. h. *Trigla hirundo*.—1863: *Echinella* (type). 1878: *Udonella*.
- hispidi ventriculi accipenseris sturionis* Viborg, 1795, 243; see *hispidum*.—1795: Dist.
- hispidum* Abildg. in Rud., 1819a, 118, 423, t. h. *Accipenser sturio*; Arimini, Berlin.—1819: Dist. (*Echinost.*). 1858: *Echinost.* 1902: *Deropristis* (type).
- histiophori* Bell, 1891a, 534, t. h., *Histiophorus brevirostris*.—1891: Trist. [1899: T. læve.]
- histrionella* Ehrenberg.—Cerc.
- histrix* Dies., 1850a, 393, for *hystrix* (Dist.) Duj., 1845.—1850: Dist. 1904: *Stephanochasmus*.
- histrix* Mol., 1858, 128, t. h. *Pelophylax esculentus*; Patavii.—1858: Monost.
- hæmatobia* Bourel-Roncière, 1878a, 116, for *hæmatobia* (Bilharzia).
- holostomoides* Mehlis in Crep., 1846, 148, t. h. *Colymbus cristatus*.—1846: Monost. 1904: *Taphrogonimus*, type.
- holostomum* Rud., 1819a, 94, t. h. *Rallus aquaticus*; Vien. Mus.—1819: Dist. 1892: *Cladocœlium*. [1902: *Urogonimus macrostomus*.]
- homœostomum* Dies., 1858, 343, based on Bellingham, 1844, 428, t. h. *Trigla* (Pini) cuculus; Ireland.—1858: Dist.
- hominis* Lewis & McConnell, 1876, 182, t. h. *Homo*; Calcutta, India.—1876: Amphist. 1895: A. (*Gastrodiscus*). 1896: *Gastrodiscus*.
- hominis* Dies., 1855, 63.—1855: Dist. *hæmatobium*.
- hominis* Dies., 1855, 64.—1855: Dist. *heterophyes*.
- hominis* Taylor, 1884, 44, see sub *Distomata*.
- homolostomum* Linst., 1887, 104, t. h. *Limnæa stagnalis*.—1887: Dist.
- horridum* Leidy, 1850, 303, t. h. *Boa constrictor*.—1850: Dist. 1895: D. (*Dicrocœlium*). 1899: *Plagiorchis*.
- horridus* Dies., 1850a, 400, t. h. *Didelphys myosurus*, D. *philander*; Brazil.—1850: *Rhopalophorus*. 1898: *Rhopalias*.
- hospes* Looss, 1907, 478, t. h. cattle; Cairo, Egypt, from Soudan.—1907: *Dicrocœlium*.
- hospitale* Staff., 1900, 403, t. h. *Diemyctylus viridescens*.—1900: Dist. 1902: D. (*Brachycœlium*). 1902: *Brachycœlium*.
- humana* Gmelin, 1790a, 3053, t. h. *Homo*.—1790: Fasc.
- hyalinum* Rud., 1809a, 389, *erici* renamed, t. h. *Salmo eriox*.—1809: Dist.
- hyalinum* Schlotthauber, 1860, 129, t. h. *Machetes pugnax*.—1860: Monost.
- hyalocauda* Haldeman (1840a).—Cerc.
- hyans* Moul., 1856a, 49, for *hians* (Dist.).
- hyatinum* Kroyer, 1843–45a, 624, for *hyalinum* (Dist.).
- hylæ* Rud., 1819a, 121, t. h. *Hyla arborea*.—1819: Dist. [1850: D. *cygnoides*.]
- hymenocerca* Villot, 1875, 479, t. h. *Calyptræa sinensis*; Roscoff.—1875: Cerc.
- hystrix* Duj., 1845a, 433, t. h. *Pleuronectes maximus*, P. *platessa*.—1845: Dist. (*Echinost.*). 1899: *Anoiktost.* 1899: *Stephanost.* 1904: *Stephanochasmus*.
- hystrix* Duj. of Olss.—1899: *Stephanost.*
- hystrix* Brand., 1892, 506, for *histrix*, t. h. *Rana esculenta*.—1892: Monost.
- hyterophytes* Cobbold, 1883, 401, for *heterophyes* (Dist.).
- idi* Rud., 1819a, 87, t. h. *Cyprinus idus*; Cat. Ent. Vienn.—1819: Monost. (?Hypost.). 1819: Monost. [1850: *Aspidogaster limacoides*.]
- ignorata* Raspail, 1902, 119.—1902: Planaria.
- ignotum* Nicoll, 1906, 514, t. h. *Hæmatopus ostralegus*.—1906: Monost.
- ijima* Goto, 1894a, 230, t. h. *Trygon pastinaca*; Japan.—1894: Monocotyle.
- illatabile* Braun, 1901g, 897, t. h. *Falco nitidus*; Brazil.—1901: *Scaphiost.* (type).

- illense* Ziegler, 1883, 543, t. h. *Esox lucius*, *Leuciscus erythrophthalmus*; Strassburg.—1883: Gasterost.
- illiciens* Braun, 1901g, 944, t. h. *Rhamphastus* sp., *Pipra rupicola*; Brazil.—1901: Dicrocoelium.
- [*illotum* Sluiter, 1898 (Dist.), a tunicate.]
- imbricata* Looss, 1893a, 20, t. h. *Paludina vivipara* La.; near Leipzig.—1893: Cerc. [1902: *Notocotyle verrucosa*.]
- imbutiforme* Mol., 1859, 844, t. h. *Labrax lupus*; Batavii.—1859: Dist. 1886: D. (Echinost.). 1898: Echinost. 1899: Anoiktost. 1901: *Acanthochasmus*.
- imitans* Muehl., 1898a, 17, t. h. *Abramis brama*; Koenigsberg i. Pr.—1898: Dist. 1899: *Asymphyllodora*.
- imparispine* Lint., 1905, 327, t. h. *Rachycentron canadus*; Beaufort, N. C.—1905: Dist.
- impleta* Looss, 1899b, 590, t. h. *Tetrodon fahaka*; Cairo, Egypt.—1899: Astia. 1904: *Astiotrema*.
- impudens* Crep., 1846, 149, t. h. *Squalus griseus*.—1846: Monost.
- incerta* Cobbold, 1885g, 177, t. h. *Coluber*; Rio Plata.—1885: Dist.
- incistidata* Perroncito, 1880, July, 454, t. h. *Rana esculenta*.—1880: Cerc. [1881: *incistidata* Erc., 1881, 96.—1881: Dist.]
- incisus* Rud., 1809a, 361, *anarrhichæ lupi* renamed.—1809: Dist. 1904: Fellodist. (type).
- incivile* Leidy, 1856b, 44, t. h. *Leiostomus obliquus*.—1856: Dist.
- inclusum* Polonio, 1859, see Par., 1894, 149, t. h. *Triton punctatus*; Padova.—1859: Dist.
- incommodum* Leidy, 1856b, 43, t. h. *Alligator mississippiensis*; Florida.—1856: Monost. 1891: Dist.
- incomptum* Stoss., 1886, 51, misprint for *incomtum* 1819 (Dist.).
- incomtum* Rud., 1819a, 683, t. h. *Chætodon* sp.; Brazil.—1819: Dist.
- inconstans* Lint., 1905, 327, t. h. *Chætoditperus faber*; Beaufort, N. C.—1905: Dist.
- incrassatum* Dies., 1850a, 390, t. h. *Lutra solitaria*; Brazil.—1850: Dist. 1860: Echinost. 1892: D. (Echinost.).
- increscens* Olss., 1868, 36, t. h. *Scomber*, *Merlucius*, *Hippoglossus*.—1868: Dist. 1886: D. (Echinost.). [1905: *Lepodora rachizæ*, type.]
- indicum* Montgomery, 1906, 139, t. h. donkey; India.—1906: *Schistosoma*.
- inermis* Nitzsch, MS., in Rud., 1819a, 375, t. h. *Anas boschas fera*.—1819: Dist. [1850: *D. oxycephalum*.]
- inermis* Fil., 1857c, pl. 2, for *D. inermis paludinæ impuræ*.—1857: Dist.
- inermis* Linst., 1879, 183, t. h. *Petromyzon fluviatilis*.—1879: Dist.
- inermis* Fuhrmann, 1904, 63, t. h. *Lutra*.—1904: Echinost.
- inermis* Par. & Perugia, 1889, 747, t. h. *Corvina nigra*; Genova.—1889: Calceost.
- inermis paludinæ impuræ* Fil., 1857c, pl. 2.—1857: Dist.
- inflatum* Crep., 1849, 64, t. h. *Alauda arvensis*.—1849: Dist.
- inflatus* Mol., 1859, 826, t. h. *Anguilla vulgaris*; Batavii.—1859: Dist. 1886: D. (Echinost.). 1898: Echinost. 1899: Anoiktost. 1902: *Deropristis*.
- inflexa* Rud., 1802b, 82, t. h. *Cyprinus jesus*.—1802: Fasc. 1809: Dist.
- ingens* Moniez, 1886, 531, t. h. unknown.—1886: Dist. 1902: *Hirudinella*.
- inhærens* Dalyell, 1853a, 262, t. h. ling.—1853: *Octodactylus* (type). [1864: *Pterocotyle palmata*.] [1879: *Octobothrium palmatum*.]
- innocuum* Baelz of Taylor, 1884, 53, for *D. hepatitis innocuum*.—1884: Dist. [1907: *Clonorchis sinensis*.]
- innocuum hepatitis* La Clinica de Malaga, 1883, 309, for *D. hepatitis innocuum*. 1883: Dist.
- innocuum* Laspeyres, 1904a, 6, for *innocuum* (Dist.).
- inops* Looss, 1902n, 887, t. h. *Pelecanus onocrotalus*, *Milvus ægyptius*; Egypt.—1902: Heterophyes.
- inquieta* Mueller, 1786, 121, in aqua marina.—1786: Cerc. 1850: *Histrionella*.
- inquinata* Graff, 1904, 457, t. h. snails.—1904: Planaria.
- insigne* Dies., 1850a, 347, *D. scimna* Risso, 1826, renamed, t. h. *Echinorhinus spinosus*.—1850: Dist. [1899: *D. veliporum*.]

- insignis* Looss, 1899b, 596, t. h. *Fulica atra*; Egypt.—1899: *Urogonimus*.
insignis Graff, 1904, 457, t. h. snails.—1904: *Planaria*.
insignis Leidy, 1858, 18, t. h. *Anadonta fluviatilis*, *A. lacustris*.—1858: *Cotylaspis* (type). 1893: *Aspidogaster*.
instabile Duj., 1845a, 412, t. h. *Sorex fodiens*; Rennes.—1845: Dist. (*Brachylaimus*).
instar Looss, 1901, 562, t. h. *Thalassochelys corticata*.—1901: *Enodiotrema*.
integerrima Freëlich, 1791a, 104, t. h. unknown.—1791: *Linguatula*. 1808: Polyst. (type). 1809: Polyst. (Hexast., type.) 1828: *Hexathyridium*. 1828: *Hexathyridium*.
integerrimum Ben. & Hesse, 1864, 84, for *integerrimum* (Polyst.).
integrum Dies., 1850a, 429, MS.—1850: Trist. [1850: Trist. *coccineum*.]
intermedium Mehlis in Creplin, 1846, 138, t. h. *Colymbus cristatus*, *C. subcristatus*.—1846: Dist.
intermedium Johnston, 1904, 109, t. h. *Cygnus atratus*.—1904: Hemist.
intermedius Uličný, 1878, 211, t. h. *Anadonta cellensis*.—1878: *Bucephalus*.
interruptum Mont., 1891, 101, t. h. *Thynnus brachypterus*; Naples.—1891: Trist.
interruptus Braun, 1901g, 897, t. h. *Alcedo viridirufa*, *Ardea virescens*; Brazil.—1901: *Opistherchis*.
intersectus Lænnec, 1812c, 9, t. h. *Homo*; Europe.—1812: *Distomus* (type).
intestinale Rud., 1819a, 119, see Dist. *aluconis intestinale*.
intestinale Tayler, see Carter, 1862a, xxxi, t. h. *Homo*; District of Dacca, India.—1862: Dist.
intestinalis Mueller.—: *Planaria*.
intestinalis Linnaeus, 1758a, 649, in *intestinis piscium*.—1758: Fasc. [Ligula.]
intestinalis Gueldenstadt, teste Rud., 1810a, 24, t. h. *Sorex moschatus*.—Fasc. [1810: Ligula.] [1850: *Cephalocotyleum*.]
intestinalis ardæ nigræ Viborg, 1795, 242.—1795: Dist.
intestinalis testudinis mydæ Viborg, see Rud., 1809a, 433.—Dist. [1809: Dist. *testudinis mydæ*.]
intestinalis vulpis Viborg, 1795, 242.—1795: Dist.
invaginatum Mayer, 1841, 17, D. *appendiculatum*, renamed.—1841: Dist.
inversus Looss, 1907, 486, t. h. *Vesperugo kuhli*; Cairo, Egypt.—1907: *Pycnopus*.
involutum Rud., 1809a, 377, t. h. *Upupa epops*; includes Fasc. *upupæ* Schrank, 1790, and D. *fusiforme* from *Upupa epops*.—1809: Dist.
irroratum Rud., 1819a, 105, t. h. *Testudo mydas*; Arimini.—1819: Dist. [1899: Astia.] 1902: *Pachypsolus* (type).
isabellinum Ratzel, 1868, 153, t. h. *Gadus aeglefinus*.—1868: Monost. [1878: *Rhipidocotyle gracilescens*.]
ischnum Leidy, 1890, 415, t. h. *Saurus fœtens*, at Beach Haven, N. J.—1890: Dist.
ishikawæ Goto, 1894a, 234, t. h. *Lethrinus* sp.; at Hagi, Japan.—1894: *Epibdella*. 1903: E. (*Benedenia*).
ishikawai St. Remy, 1898, 532, for *ishikawæ* (*Epibdella*).
isopori Looss, 1894a, 55, in *Cyclas rivicola*.—1894: Cerc. [Dist. *isoporum*.]
isoporum Looss, 1894, 49, t. h. *Cyprinus carpio*, *Phoxinus lævis*, *Leuciscus rutilus*, *Abramis brama*, *Squalius cephalus*, *Tinca vulgaris*, *Esox lucius*; Germany.—1894: Dist. 1899: *Creadium* (type). 1900: *Allocreadium* (type).
isoporum armatum MacCallum, 1895, 401, t. h. *Aplodmotus grunniens*; North America. 1895: Dist. [*Creadium*.]
isostomum Rud., 1819a, 105, t. h. *Astacus fluviatilis*.—1819: Dist.
isostomum Rud., 1814a, 100, *Amphist. anatis tadornæ* and *S. candida* renamed, t. h. *Anas tadorna*; Copenhagen.—1814: *Amphist.* 1845: Holost. [1850: H. *erraticum*.]
italicum Stoss., 1893, (6), t. h. *Lichia amia*; Trieste.—1893: Dist.
jacksoni, see *jacksonii* (Fasc.).—1892: Dist. 1899: *Fasciolopsis*.
jacksonii Cobbold, 1869, 48, t. h. *Elephas indicus*.—1869: Fasc. 1892: Dist.
janus Kowal., 1898, 73 or 130, t. h. *Anas boschas dom.*—1898: O. *crassiuscula* var. 1898: *Opisthorchis*. 1898: *Campula*.

- japonicum* Katsurada, 1904, 147, t. h. *Felis catus* dom., Homo; Japan.—1904: Schistosomum. 1905: Schistosoma.
- japonicum* Bl., 1888a, 596, t. h. Homo; *D. hepatis* endemicum renamed, see endemicum.—1888: Dist. [1907: *Clonorchis* endemicus.]
- japonicus* Braun, 1901, 17, in hen's egg; Yedo, Japan.—1901: *Prosthogonimus*.
- jardini* (Bucephalus), reptile.]
- jesis* Gmelin, 1790a, 3058, t. h. *Cyprinus* jesus; Europe.—1790: Fasc.
- jheringii* Mont., 1899, 79, for *jheringii* (Temnocephala).
- jheringii* Haswell, 1893e, 96, t. h. *Ampullaria*; Brazil.—1893: Temnocephala.
- kampanulatum* Schneidemuehl, 1896, 302, for *campanulatum*.—1896: Dist.
- kantaniana*, see *cantaniana*.
- kölikeri* Cobbold, 1860a, 30, *pelagiæ* Kölliker, renamed.—1860: Dist.
- köllikeri* Mont., 1893, 122, for *kölikeri* (Dist.).
- kommutat* Schneidemuehl, 1896, 303, for *commutat* Dies., q. v. (Dist.).
- kongenitum* Schneidemuehl, 1896, 302, for *conjunctum* (Dist.).
- konica* for *conica*.
- konikum* Schneidemuehl, 1896, 303, for *conicum* (Amphist.).
- kowalewski* Rail., 1899, 788, for *kowalewskii* (Schistosoma).—1902: Bilharzia.
- kowalewskii* Par. & Ariola (1896), 114, t. h. *Larus melanocephalus*.—1896: Bilharzia. 1899: Schistosoma. 1899: Bilharziella.
- krassum* Schneidemuehl, 1896, 302, for *crassum* (Dist.).
- krøyeri* Leuck., 1847, 147, t. h. *Caligus* sp. on *Gadus* sp.—1847: Amphibothrium (type).
- krøyeri* Wierezejski, 1877, 550, for *kroyeri* (Calicotyle).
- krøyeri* Hæk, 1856a, 507, for *kroyeri* (Calicotyle).
- krøyerii* Ben., 1870, 16, for *kroyeri* (Calicotyle).
- krohnii* Kölliker, 1849d, 65, t. h. a cephalopod.—1849: Dyst. [Dist.]
- kroyeri* Dies., 1850a, 431, t. h. *Raja* radiata; Kattegat.—1850: Calicotyle (type). 1858: Calicotyle. 1898: Calycotyle.
- kroyeri* Dies., 1850a, 427, for *krøyeri* (Amphibothrium).
- kuhni* Cobbold, 1860a, 39, *M. leporis*, renamed, t. h. *Lepus cuniculus*—1860: Monost. [Cysticercus pisiformis.]
- kuneatum* Schneidemuehl, 1896, 303, for *cuneatum* (Dist.).
- labiatum* Rud., 1819a, 108, t. h. *Syngnathus pelagicus*; Naples.—1819: Dist.
- labii* Linst., 1889, 79, misprint for *labri* Stoss. (Dist.).
- labracis* Duj., 1845a, 398, t. h. *Labrax lupus*; Rennes.—1845: Dist. (Dicrocœlium). 1870: Echinost. 1870: D. (Echinost.). 1899: Dicrocœlium. 1901: Allocreadium.
- labracis* Cerf., 1895, 125, t. h. *Labrax lupus*; White Bank, N. Sea.—1895: Diclidophora.
- labracis* Ben. & Hesse, 1863, 1864, 112, t. h. *Labrax lupus*.—1863: Microcotyle (? type).
- labri* Rud., 1819a, 122, t. h. *Labrus rupestris*; C. E. V.—1819: Dist. [1850: D. fasciatum.]
- labri* Ben., 1870, 45, n. sp., t. h. *Labrus maculatus*.—1870: Dist.
- labri* Stoss., 1886, 30, t. h. *Labrus mixtus*; locality not given.—1886: Dist. 1886: D. (Dicrocœlium). 1901: Allocreadium. 1902: Loborchis.
- labri rupestris* Olss., 1876, 20.—1876: Dist. 1886: D. (Apoblema). 1891: Apoblema.
- lacetæ* Dies., 1850a, 331, t. h. *Lacerta agilis*.—1850: Monost. [Cf. *Piestocystis* dithyridium.]
- lacetæ* Rud., 1819a, 121, t. h. *Lacerta cærulescens*; C. E. V.—1819: Dist. [1850: D. mentulatum.]
- lachrymosus* Braun, 1902b, 31, t. h. *Larus maculipennis*; Brazil.—1902: Philophthalmus.
- laciniatum* [Blainv., 1824] Duj. 1845a, 437, t. h. *Simia maimon*; Paris.—1845: Dist. [1824: "Alaire" type.] [1850: *Alaria* Blainv., type.]
- laciniatum* Mol., 1859, 821, apparently lapsus for *fimbriatum*.—1859: Gasterost.
- lachryma* Bory de St. Vincent, 1823a, 354, in infusions d'orge et d'avoine.—1823: Cerc.
- lactea* Mueller, 1774, 61, free form.—1774: Fasc. 1787: Planaria.

- lacteum* Jægers., 1896, 167, t. h. *Cottus scorpius*.—1896: Monost. 1899: Galactosomum (type).
- læve* Lint. 1898, 517, t. h. *Macrourus bairdii*.—1898: Dist. 1899: Hemiusur.
- læve* Verrill, 1875, 40, t. h. *Tetrapturus albidus*; North America.—1875: Trist. [1906: T. ovale.]
- læve* var. *armata* Goto, 1899a, 273, for *læve* Verrill and *histiophori* of Bell.—1899: Trist.
- læve* var. *inermis* Goto, 1899a, 273, ovale renamed.—1899: Trist. [1899: T. ovale.]
- lævis* Ben. & Hesse, 1864a, 87, t. h. *Mustelus lævis*.—1864: Erpocotyle (type).
- lagna* Rud., 1809a, 366, as *Distomate lagna*, see *lagna* 1788.
- lagna* Braun, 1788, 237, t. h. *Perca fluviatilis*; Europe.—1788: Planaria. 1790: Fasc. 1809: Dist. [1809: Dist. nodulosum.]
- lagna* Mol., 1858, 127, t. h. *Strix passerina*; Patavii.—1858: Holost.
- lagna* Brand., 1888, 249, *ascidia* Ben., 1873, not Rud., 1819, renamed.—1888: Dist. 1899: *Lecithodendrium* (type).
- lageniforme* Lint., 1898, 524, t. h. *Remora remora*.—1898: Dist.
- lambitans* Braun, 1899g, 490, t. h. a “Reiher;” *Semanabay*, West Indies.—1899: Clinost.
- lampetræ* Gulliver, 1872, 103, t. h. *Planer's lamprey*; Canterbury.—1872: *Neuronaia*.
- lampridis* Lœnnberg, 1891, 73, t. h. *Lampris guttatus*; Kristiania Mus.—1891: Didymozoon.
- lancea* Dies., 1850a, 334, t. h. *Delphinus tacuschi*; Barra do Rio Negro, Brazil.—1850: Dist. 1892: D. (*Dicrocœlium*). 1901: *Opisthorchis*.
- lanceatum* Stiles & Hass., 1896, 158, *lanceolatum* Rud., 1803 [not Schrank, 1790] renamed.—1896: *Dicrocœlium* (type). 1899: Dist.
- lanceolata* Schrank, 1790, 123, t. h. *Cyprinus brama*.—1790: Fasc.
- lanceolata* Schulze in Zeringer (1829), see *Crep.*, 1839a, 291.—? (1829): *Cyclocotyla*. (1839): *Cyclocotyle*. [1850: *Discocotyle sagittata*.] [1879: *Octobothrium sagittatum*.]
- lanceolata* Rud., 1803, 24, t. h. *Homo*; Europe.—1803: Fasc. 1825: Dist. 1845: D. (*Dicrocœlium*, type). 1856: *Dicrocœlium*.
- lanceolatum* F. S. Leuck., 1827a, 24, t. h. *Clupea alosa*; Germany.—1827: *Octobothrium* (type). 1850: *Octocotyle* (type). 1858: *Octoplectanum* (type). [Mazocraes alosæ.] [*Octostoma alosæ*.]
- lanceolatus* Wedl, 1858, 251, t. h. *Himantopus rubropterus*.—1858: Monost. 1902: *Hæmatotrephus* (type).
- lanceolatus alosæ* Mayer, 1841, 23, *Octobothrium lanceolatum*, renamed.—1841: *Decacotylus*.
- lanceolum* Gronkowski, 1902a, 519, for *lanceolatum* (Dist.).
- lanceulatum* Baldi, 1900a, 224, for *lanceolatum* (Dist.).
- lapridis* Sars, teste Nordmann, 1840, 600, in *Lampris gullatus*.—1840: *Hexacotyle*.
- lari glauci* Rud., 1819a, 92, t. h. *Larus glaucus*; Cat. Ent. Vien.—1819: *Amphist*. [1850: *Hemist. spathaceum*.]
- lasium* Leidy, 1891a, 415, t. h. *Ilyanassa obsoleta*; Beach Haven, N. J.—1891: Dist.
- lata* Lespès, 1857, 114, t. h. *Venus decussata*; Arcachon.—1857: *Cerc*. 1858: C. (*Gymnocephala*).
- lateralis* Looss, 1902h, 138, t. h. *Mugil auratus*, M. chelo.—1902: *Haploporus*.
- laticolle* Rud., 1819a, 117, t. h. *Caranx trachurus*; Naples and Arimini.—1819: Dist. (*Echinost.*) 1899: *Tergestia*. 1899: *Echinost*.
- laticolle* Mueh., 1896, 590 [not Rud., 1819], t. h. *Anas glacialis*; apparently Kœnigsberg i. Pr. See *platyurum*.—1896: Dist.
- latiuscula* Gœze, 1782a, 169, includes Fasc. *hepatica* Linn.—1782: *Planaria*.
- laureatum* Zed., 1800a, 164, t. h. *Salmo trutta*; Europe.—1800: Dist. 1802: Fasc. 1828: *Lobostome*, type. 1845: Dist. (*Crossodera*). 1860: *Crossodera*. 1900: *Crepidost*. —: *Bunodera*.
- [*laysani* Sluiter, 1900, 9 (Dist.) a tunicate.]
- [*leachii* Stevens, 1827 (*Distomus*), beetle.]
- lecithonotus* Luehe, 1900, 555 [see *philodryadum*], t. h. *Coluber* sp., C. eririo, *Philodryas schotti*; Brazil.—1900: *Opisthogonimus* (type).

- leidy* Cobbold, 1860a, 10, Clinost. dubium Leidy, renamed.—1860: Dist.
- lemnæ* Mueller, 1773, 67, in aquis paludosis.—1773: Cerc. (?type). 1850: Histrionella.
- lenoiri* Poir., (1885) 1886, 3, t. h. Tetrathyra vaillantii; Senegal.—1885: Cephalogominus (type).
- lenoiri* Poir., 1886, 20 t. h. Tetrathyra vaillantii; Senegal.—1886: Aspidogaster. 1892: Platyaspis (type). 1902: Cotylaspis.
- lenoirii* Mont., 1888a, 16, for lenoiri (Aspidogaster).
- lenticola* Linst., 1878, 226, t. h. Abramis vimba.—1878: Diplost. 1892: Tetracotyle.
- lensis* Gescheidt, 1833, 421, t. h. Homo.—1833: Monost. 1860: Festuc. 1892: Monostomulum. 1894: Dist.
- lepidotus* Looss, 1907, 481, t. h. Vesperugo kuhli; Cairo, Egypt.—1907: Parabascus (type).
- leporis* Kuhn, 1829, 464, t. h. Lepus cuniculus.—1829: Monost. [Cysticercus pisi-formis.]
- leptogaster* F. S. Leuck., 1830a, 612, t. h. Chimæra monstrosa; Europe.—1830: Octobothrium. 1845: Octobothrium (Cyclocotyle). 1850: Discocotyle. 1858: Placoplectanum (Discocotyle). 1890: Octocotyle (Octobothrium).
- leptosoma* Villot, 1878, 32, cercarian stage of Dist. leptosomum, in Scrobicularia tenuis.—1878: Cerc.
- leptosomum* Crep., 1829, 57, t. h. Tringa variabilis.—1829: Dist. 1845: D. (Echinost.). 1860: Echinost.
- leptostomum* Olss., 1876, 18, t. h. Meles taxus.—1876: Dist. 1892: D. (Brachylaimus) 1899: Harmost. (type). 1899: Heterolope (type).
- leucochloridii* Leuck., 1858a, 114, see Leucochloridium paradoxum.—1858: Cerc. 1858: Dist.
- levinseni* Odhn., 1905, 348, t. h. Gadus saida; East Greenland.—1905: Hemiuirus.
- levinseni* Setti, 1898, 311, for levinseni (Trist.).
- levinseni* Mont., 1891, 101 t. h. Thynnus sp.—1891: Trist.
- lichæ* Ariola, 1899, 1, t. h. Lichia amia; Genova.—1899: Microcotyle.
- lydiæ* Par., 1902, 6, for lydiæ (Echinost.).
- ligula* Ben., 1870, 1871a, 17, t. h. Scymnodon ringens; Portugal.—1870: Dist.
- liguloideum* Dies., 1850a, 320, t. h. Vastres cuvieri; Borbæ, Brazil.—1850: Monost. 1892: Amphilina.
- liliputanum* Looss, 1896, 141, t. h. Pernis apivorus, at Alexandria, Egypt; Milvus parasiticus, at Matarijeh.—1896: Echinost.
- lima* Rud., 1809a, 408, t. h. Vespertilio auritus, V. murinus; Europe.—1809: Dist. (Echinost.). 1892: D. (Brachylaimus). 1899: Plagiorchis (type). [1899: Lepoderma.]
- limacis* Dies., 1850a, 302, based on Duj., 1845a, 472, in Limax agrestis, L. cinerea, L. rufa; Rhedoni.—1850: Dist. 1850: Heterost. 1855: Cercariæum. 1856: Cerc. [1858: C. (Acanthocephala) trigonocerca.]
- limacoides* Dies., 1834a, 1231; 1835c, 421, t. h. Cyprinus dobula, C. idus; Cat. Vien.—1834, 1835: Aspidogaster. 1835: Monost.
- limatulum* Braun, 1900f, 389, t. h. Molossus sp.; from Brazil.—1900: Dist. [1907: ? Parabascus.]
- limnææ ovatæ* Linst., 1885, 251.—1885: Dist.
- limnææ ovatæ* Linst., 1884, 142.—1884: Cerc. [1889: Dist. endolobum Duj.]
- limnææ truncatulæ* Linst., 1892, 331, t. h. Limnæa truncatula.—1892: Cerc.
- limnæi* Dies., 1850a, 302, based on Duj., 1845a, 473, t. h. Limnæus palustris; Rhedoni.—1850: Dist. 1850: Heterost.
- limnæi* Pag., 1857, 32, t. h. Limnæus stagnalis.—1857: Tetracotyle. [1858: T. typica.]
- limnophili* Linst., 1879, 185, t. h. Limnophilus rhombicus; apparently Germany.—1879: Dist. [1889: D. endolobum.]
- limuli* Graff (1879), 202.—1879: Plan.
- linearæ* Rud., 1819a, 83, t. h. Tringa vanellus; Mus. Vien.—1819: Monost. (Monost.). [1850: Notocotyle triseriale.] [1896: N. verrucosum.]
- linearis* Looss, 1901, 618, t. h. Chelone mydas; Egypt.—1901: Pleurogonius.
- linearis* Rud., 1793a, 29, t. h. Phasianus gallus; Greifswald, October.—1793: Fasc. 1803: Dist. 1860: Crossodera. 1896: Bunodera.

- linearis* Mueller, 1774, 67, in foveis palustribus sylvarum.—1774: Fasc. 1787: Plan.
- linearis* Lespès, 1857, 117, t. h. *Littorina littorea*.—1857: Cerc. 1858: C. (*Acanthocephala*).
- [*linearis* (Nitzschia) a diatome.]
- linearis longa* Linn. teste Pallas, 1781a, 95, in *Cyprinus*.—1781: Fasc.
- lineata* Mueller, 1774, 60, in *littore maris Balthici*.—1774: Fasc. 1776: Plan.
- lineatus* Scott, 1901, 143, t. h. *Trigla lineata*; Clyde.—1901: Trochopus.
- lineola* Dies., 1850a, 346, t. h. *Falco rufus*; C. E. V.—1850: Dist.
- lingua* Bosc, 1802a, 262.—1802: Plan.
- lingua* Crep., 1825, 47, t. h. *Larus marinus*.—1825: Dist. 1892: D. (*Dicrocoelium*). 1899: *Tocotrema* (type). 1899: *Cryptocotyle*. 1899: *Cotylogonimus* (*Cryptocotyle*). 1903: *Cryptocotyle*.
- linguæforme* Dies., 1850a, 335, *Brachylæmus erinacei* Bl., 1847, renamed; t. h. *Erinaceus europæus*; Paris.—1850: Dist. 1898: *Mesogonimus*.
- linguale* Odn., 1902, 66, t. h. *Gymnarchus niloticus*; Sudan.—1902: Phyllodist.
- linguātula* Rud., 1819a, 100, t. h. *Rana*; Brazil.—1819: Dist. ? : D. (*Brachylaimus*).
- linguātula* Looss, 1899b, 668, t. h. *Chelonia mydas*; Egypt.—1899: *Microscapha*. 1902: *Microscaphidium*. 1902: *Polyangium* (type).
- linstowi* Mont., 1893, 102, for *linstowii* (Dist.).
- linstowii* Stoss., 1890, 42, *Monost. aculeatum* Linst., from *Testudo græca*, renamed.—1890: Dist. 1895: D. (*Dicrocoelium*). 1899: *Telorchis* Luehe. 1899: *Telorchis* (type) Looss. 1900: T. (*Cercorchis*, type).
- lintoni* Pratt, in Lint., 1901b, 435, *D. auriculatum* Wedl of Lint., in *Acipenser rubicundus*, renamed.—1901: *Bunodera*.
- liorchis* Fischder., 1901, 368, t. h. *Cervus simplicicornis*, *C. campestris*, *C. mexicanus*, *C. rufus*, *C. dichotomus*, *C. namby*; Brazil.—1901: *Paramphist*.
- littoralis* Herbst, 1787a, 35.—1787: Plan.
- lobatum* Rail., 1900, 241, t. h. *Accipiter nisus*.—1900: *Dicrocoelium*. 1902: *Lyperosomum*.
- lobatus* Looss, 1901l, 619, t. h. *Chelone mydas*; Egypt.—1901: *Glyphicephalus*.
- lobianchi* Mont., 1888a, 7, t. h. *Raia clavata*.—1888: *Acanthocotyle* (type).
- lobianchi* Mont., 1891a, 104, for *lobianchi* (*Acanthocotyle*).
- lobianchoi* Goto, 1899, 285, for *lobianchi* (*Acanthocotyle*).
- lobiancoi* Mont., 1899, 75, for *lobianchi* (*Acanthocotyle*).
- lobotes* MacCallum, 1895, 406, t. h. *Anguilla chrysopa*, *Perca flavescens*, *Stegostedion vitreum*; North America.—1895: Dist. 1904: *Centrovarium* (type).
- loliginis* delle Chiaje, 1823, pl. 92, t. h. *Loligo vulgaris*; Naples.—1823: Polyst. [1850: *Solenocotyle chiajei* (type).]
- loliginis* Gmelin, 1790a, 3059, includes *F. barbata*.—1790: Fasc. 1803: Dist. [1850: *Tetraphrithiorhynchus migratorius*.]
- loliginis* delle Chiaje, 1841a, 140.—1841: *Amphyst*. [*Amphist*.] 1894: *Monost*.
- longe* Braun, 1892a, 581, for *longum* (*Diplost*.).
- longicauda* Rud., 1809a, 372, t. h. *Corvus cornix*.—1809: Dist. [1819: *D. macrourum*.] 1899: *Dicrocoelium*. [1899: *Lyperosomum*.] 1902: *Lyperosomum* (type).
- longicauda* Goto, 1899a, 282, t. h. *Cynoscion regale*; Newport, R. I.—1899: *Microcotyle*.
- longicaudata* Piana, 1882, see Par., 1894, 161, t. h. *Helix carthusiana*.—1882: Cerc. [See also *longocaudata*.]
- longicolle* Crep., 1846, 154, t. h. *Cottus gobio*.—1846: Dist.
- longicolle* Crep., 1825, 57, t. h. *Perca vulgaris*, *P. cernua*; includes *D. embryo* Olfers.—1825: Dist. [1850: *D. embryo*.]
- longicolle* Rud., 1819a, 87, t. h. *Ardea alba*, *A. stellaris*, *Larus ridibundus*, *L. atricilla*; Mus. Vien.—1819: *Amphist*. 1845: *Holost*. 1905: *Strigea*.
- longicollis* Rud., 1809a, 380, based on Bloch, 1782a, 6, t. h. *Esox lucius*.—1782: Fasc. [1809: Dist. *tereticolle*.]
- longicollis* Abildg., [1788], 34, t. h. *Coluber natrix*.—[1788]: Fasc. 1860: Dist.

- longicollis* Froelich, 1791, 73, t. h. *Cyprinus carpio*.—1791: Fasc. [1809: Dist. globiporum.] 1881: Dist.
- longicollis* Dies., 1850a, 417, Octost. merlangi Kuhn, renamed, t. h. *Merlangus vulgaris*.—1850: *Diclidophora*. 1859: *Octoplectanum*. [1879: *Octobothrium merlangi*.]
- longipenis* Looss, 1899, 608, t. h. ape; Ghizeh Zool. Garden.—1899: *Phaneropsolus*.
- longipes* Dies., 1850a, 428, tubiporum 1835 renamed, t. h. *Trigla hirundo*.—1850: *Trochopus* (type). [1864: *T. tubiporus*.]
- longiplexus* Staff., 1902, 901, in lungs of American frogs and toads.—1902: *Hæmatolæchus*. 1905: *Pneumonœces*.
- longispina* Klein, 1905, 65, t. h. *Rana hexadactyla*; India.—1905: *Halipegus*.
- longissimum* Linst., 1883, 308, t. h. *Ardea stellaris*; Turkestan.—1883: Dist. 1892: D. (*Dicrocœlium*). 1896: *Opisthorchis*.
- longissimum* Poir., 1886, 29, t. h. *Delphinus tursio*.—1886: Dist. 1892: D. (*Dicrocœlium*). [1896: *D. tursionis*.]
- longissimum corvinum* Stiles & Hass., 1894, 418, t. h. *Corvus americanus*, *C. ossifragus*; U. S. A.—1894: Dist. (*Dicrocœlium*). 1899: *Opisthorchis*.
- longissimum corvinum* Stiles & Hass., 1896, 155, misprint for *corvinum* (Dist. *longissimum*).
- longiusculus* Looss, 1902m, 582, misprint for *longiusculus* (*Pleurogonius*).
- longiusculus* Looss, 1901l, 568, t. h. *Chelone mydas*; Egypt.—1901: *Pleurogonius* (type).
- longicaudata* Piana, 1882, teste Par., 1894, 622 (misprint?) in *Helix carthusianella*; Reggio Em.—1882 or 1894: Cerc.
- longum* Brand., 1888a, 25, t. h. *Crocodylus*; Brazil.—1888: Diplost.
- longum* Leidy, 1851, 206, t. h. *Esox estor*; at Cleveland, Ohio.—1851: Dist. 1904: Megadist. (type).
- loossi* Sinitzin, 1905, 33, *G. cygnoides* of Looss renamed.—1906: *Gordodera*.
- loosii* Marshall & Gilbert, 1905, 483, t. h. *Micropterus salmoides*, *Lucius lucius*, *Amia calva*.—1905: *Azygia*.
- lophocerca* Fil., 1857c, 5, t. h. *Paludina impura*; Torino.—1857: Cerc. 1858: *Glenocerc*.
- lorenzii* Mont., 1899, 1045, t. h. *Trigla* sp.; Rovigno.—1899: *Plectanocotyle*.
- lorum* Duj., 1845a, 407, t. h. *Talpa europæa*; Rennes.—1845: Dist. (*Brachylaimus*). 1893: *Mesogonimus*. 1899: *Dolichosomum* (type). [1899: *Itygonimus* (type).] 1900: *Dolichodemus* (type).
- loxix* Rud., 1819a, 120, t. h. *Loxia chloris*, *L. coccothraustes*, *L. pyrrhula*; C. E. V.—1819: Dist. [*D. mesostomum*.]
- lubens* Braun, 1901, 945, t. h. *Pipra rupricola*.—1901: *Dicrocœlium*.
- lucaneum* Brand., 1892b, 511, for Monost. (*Glenocerc*.) *lucanica* in *Planorbis parvus*.—1892: *Monostomulum*.
- lucania* Leidy, 1904a, 143, for *lucanica* (Monost.).
- lucanica* Leidy, 1877, 200, t. h. *Planorbis parvus*; U. S. A.—1877: Monost. (*Glenocerc*.) [1892: *Monostomulum*, see *lucaneum*.]
- lucii* Mueller, 1776, 224, t. h. *Lucius*, esoph., stomach.—1776: Fasc. 1782: Plan. 1800: Dist. [*D. tereticolle*.]
- lucii* Rud., 1819a, 122, for *D. esocis lucii* Rud., 1809a, 438, t. h. *Esox lucius*; Greifswald.—1819: Dist.
- lucioperca* Mueller, 1776, 223, t. h. *Perca lucioperca*.—1776: Fasc. 1803: Dist. [*D. nodulosum*.]
- lucipetum* Rud., 1819a, 94, t. h. *Larus fuscus*, *L. glaucus*; Mus. Vien.—1819: Dist. 1828: Fasc. 1845: D. (*Dicrocœlium*). 1899: *Philophthalmus*.
- lûhei* Odhn., 1905, 351, t. h. *Clupea harengus*, *C. sprattus*.—1905: *Hemiusur*.
- luna* Mueller, 1786, 139, in aqua rarissime.—1786: Cerc. 1815: *Furcocerca*. 1827: *Lecane*.
- lunatus* Dies., 1836d, 238, t. h. *Cervus dichotomus* [?], *Anas melanotos*, *A. ipecutiri*, *Himantopus wilsonii*; Caiçara, Brazil.—1836: Amphist.
- lunatus* Looss, 1901l, 558, t. h. *Thalassochelys corticata*; Triest.—1901: *Pachypsolus* (type). [See *irroratus*.]

- lungocaudata* Piana teste R. Bl., 1888a, 603 [see also *longicaudata*], t. h. *Helix carthusiana*.—1888: Cerc.
- lupi* Ben. & Hesse, 1863, 92, t. h. *Labrax lupus*.—1863: *Udonella*.
- lupus* Mueller, 1773, 67, in aquis, ubi *Lemna* vegetat, rara.—1773: Cerc. 1815: *Furcocerca*. 1827: *Dicranophorus*. [1828: *Cyclogena* (type).]
- lusca* Ben., 1868a, 7, for *lusca* (*Dactycotyle*), in *Morrhua lusca*.
- lusca* Ben. & Hesse, 1863; 1864, 111, t. h. *Morrhua lusca*.—1863, 1864: *Dactycotyle*. 1879: *Dactylocotyle*. 1879: *Octobothrium*. 1890: O. (*Dactylocotyle*).
- lutea* Ben. of Giard, 1897c, 954, t. h. *Tapes decussatus* and *T. pullastra* at Arcachon and *Donax trunculus* at Wimereux.—1897: Cerc. [1897: *Brachycœlium luteum*.]
- lutea* Ben., 1870, 3, t. h. *Scyllium canicula*.—1870: Dist. 1897: *Brachycœlium*. 1897: Cerc. 1904: *Diptherost*. [*D. betencourti*.]
- luteum* Baer, 1826a, 125; 1827, 610, t. h. *Paludina vivipara*; *Regiomonti*.—1826: Dist. [1850: *Heterost. ovatum*.]
- luzii* Dies., 1850a, 358, for *lucii* (Mueller) Zed., (Dist.).
- lydiæ* Stoss., 1896, 190, t. h. *Orthogoriscus mola*; *Triest*.—1896: *Echinost.* 1899: Dist. 1899: *Anoikto*. 1899: *Stephanost.* 1901: *Dihiemistephanus* (type).
- lymnæi auricularis* Fil., 1854, 25, t. h. *Lymnæus auricularis*.—1854: Dist. 1855: *Cercariæum*. 1856: Cerc.
- lymnæi obscuri* Erc., 1881e, 33, t. h. *Limnæus obscurus*, L. *stagnalis*; *Bologna*.—1881: Cerc.
- lymnæi palustris* Dies., 1855a, 399, for *limnæi* 1850a, 302.—1855: *Cercariæum*.
- lymnæi peregrini* Dies., 1858d, 279, t. h. *Lymnæus peregrinus*; *Turin*.—1858: *Cercariæum*.
- lymphaticum* Linst., 1903, 353, t. h. *Mustelus vulgaris*.—1903: Dist. [1906: *D. megastomum*.]
- lyratum* Schlotthauber, 1860, 129, t. h. *Ardea cinerea*.—1860: *Holost.*
- macaci* Cobbold, 1861, 119, t. h. *Macacus radiatus*.—1861: Cerc.
- macconelli* Cobbold, 1876, 97, *D. sinense* renamed.—1876: Dist. [1907: *Clonorchis sinensis*.]
- macdonaldi* Mont., 1891, 120, t. h. *Melo* sp.: *Shark Bay*, *West Australia*.—1891: *Aspidogaster*.
- macdonaldii* Mont., 1891, 121, for *macdonaldi* (*Aspidogaster*).
- macrocerca* Looss, 1894a, 253, for *macrocerca* (Cerc.).
- macrobothrium* Ben., 1870, 70, t. h. *Osmerus eperlanus*.—1870: Dist.
- macrocephalum* Rud., 1803a, 21, t. h. *Strix bubo*: includes *Strigea* and *Fasc. strigis*.—[1782: *Planaria*.] [1788: *Festuc.*] [1790: *Fasc.*] [1790: *Strigea*, type.] 1803: *Amphist.* (type). [1819: *Holost. variabile*, type.] 1828: *Holost.* (type). [1850: *Hemist.*]
- macrocephalum* [pars: *falconis milvi*] Rud., 1819a, 88.—1819: *Amphist.* [1840: *A. striatum*.] [1850: *Hemist. spatula*.]
- macrocerca* Fil., 1854a, 13, t. h. *Cyclas cornea*; *Turin*.—1854: Cerc. 1855: C. (*Xiphidiocerca*). 1858: C. (*Acanthocephala*). [1858: Dist. *cygnoides*.] [1902: *Gorgodera cygnoides*.]
- macrocotyle* Dies., 1858, 342, t. h. *Orthogoriscus mola*, in *Ireland*: based on *Bellingham*, 1844, 429.—1858: Dist. [1860: *D. macrocephalum*.] 1886: D. (*Cladocœlium*). 1893: D. (*Accacœlium*). [1893: *D. megnini*.] 1898: *Podocotyle*. 1898: D. (*Podocotyle*). 1901: *Accacœlium*.
- macrolaimus* Linst., 1894b, 334, t. h. *Vesperugo pipistrellus*.—1893: Dist. 1899: *Lecithodendrium*.
- macrophallos* Linst., 1875a, 190, t. h. *Totanus hypoleucos*.—1875: Dist. 1892: D. (*Brachycœlium*). 1900: D. (*Levinsonia*). 1899: *Levinsonia*.
- macrophallus* Linst., 1887, 104, for *macrophallos* (Dist.).
- macropoculum* Cobbold, 1860a, 25, *macrocotyle* 1858 renamed, t. h. *Orthogoriscus mola*.—1860: Dist.
- macroporum* Mont., 1893, 133, t. h. *Lophius piscatorius*.—1893: Dist.
- macropterum* Wien. MS. in Brandes, 1888a, 55, syn. of *grande* Dies.—1888: *Hemist.* [1888: *Diplost. grande*.]
- macrorchis* Brand., 1892, 508, t. h. *marine turtles*.—1892: *Monost.*

- macrostoma* Rud., 1803a, 26, t. h. Nachtigall [*Motacilla lusciniæ*]; Greifswald, June.—1803: Fasc. 1809: Dist. 1893: *Urogonimus* (type). 1896: D. (*Urogonimus*). [1835: *Leucochloridium paradoxum*, type.] 1907: *Leucochloridium*, type.
- macrostomum* Schlotthauber, 1860, 130, t. h. *Petromyzon fluviatilis*.—1860: Dist.
- macrostomum* Rud., 1809a, 337, t. h. *Larus cinerarius*; Greifswald.—1809: Monost. (Monost.).
- macrostomum* Jægers., 1900a, 33, t. h. *Telmatias major*; ?Upsala.—1900: Diplost.
- macrourum* Rud., 1819a, 98, t. h. *Corvus cornix*; D. *longicauda* Rudolphi, 1809a, 372 renamed.—1819: Dist. 1853: Dist. (*Dicrocœlium*). 1899: *Dicrocœlium*. [1902: *Lyperosomum longicauda* and *Dicrocœlium albicollæ*.]
- macrurum* Schlotthauber, 1860, 129, t. h. *Corvus glandarius*.—1860: Monost.
- macrurum* Braun, 1892a, 746, for *macrourum* (Dist.).
- maculata* Leidy, 1847e, 252, free; Phila.—1847: Plan.
- maculatum* Looss, 1901d, 402, t. h. *Labrus merula*, *Crenilabrus pavo*, *C. griseus*; Triest.—1901: Dist.
- maculatum* Rud., 1819a, 123, t. h. *Diodon*; California.—[1811: *Capsala martinieri*, type.] 1819: Trist. 1840: *Capsala*. 1850: Trist.
- maculosa* Rud., 1802, 67, *F. hirundinis* renamed, t. h. *Hirundo apus*.—1802: Fasc. 1809: Dist. 1845: D. (*Brachylaimus*). 1892: D (*Dicrocœlium*). 1901: *Plagiorchis*.
- madagascariensis* Vayssière (1892), 64.—1892: *Temnocephala*. 1899: *Dactylocephala* (type).
- magna* Cobbold, 1859d, 364, t. h. *Cercopithecus fuliginosus*.—1859: *Bilharzia*. 1892: *Gynæcephorus*. [1895: *Bilharzia hæmatobia*.] 1899: *Schistosoma*.
- magna* Pag., 1857, 22, t. h. *Paludina vivipara*.—1857: Cerc. 1858: C. (*Gymnocephala*).
- magniovatum* Stoss., 1898, 53, t. h. *Puffinus kuhlii*; Triest.—1898: *Echinost.*
- magnum* Bassi, 1875, 497, t. h. [Hirsch]; *Mandria*.—1875: Dist. 1889, 1894: Fasc.
- maimonis* Blainv., 1828, 586, t. h. *Simia maimon*.—1828: Fasc.
- maior* Tasch., 1879, 263, for *major* (*Dactylogyrus*).
- major* Goto, 1894a, 203, t. h. *Scomber colias*; Japan.—1894: *Octocotyle*.
- major* Nitzsch, 1817, 44.—1817: Cerc. [1850: *Histrionella lemna*.]
- major* Wagener, 1857, 99, "pl. 15, fig. 9," t. h. *Gobius fluviatilis*.—1857: *Dactylogyrus*.
- majus* St.-Remy, 1898, 547, for *major* (*Octocotyle*).
- malleus* Linst., 1877, 182, t. h. *Barbus fluviatilis*.—1877: *Dactylogyrus*.
- mancupatus* Fischder., 1901, 371, t. h. African cattle.—1901: *Gastrothylax*.
- masoni* Sambon, 1907, 365, t. h. *Homo*; Africa.—1907: *Schistosomum*.
- marænulæ* Rud., 1809a, 339, t. h. *Salmo marænula*; Europe.—1809: Monost. (Hypost.) 1892: *Monostomulum*.
- marculentum* Braun, 1901g, 948, t. h. *Emberiza citronella*; Vien. Mus.—1901: Dist.
- margaritarum* Dubois, 1901, 603, t. h. *Mytilus edulis*.—1901: Dist.
- margaritifera* Shipley & Hornell, 1904, 78, t. h. *Margaritifera vulgaris*; Ceylon.—1904: *Muttua* (type).
- margaritifera* Shipley & Hornell, 1904, 78, t. h. *Margaritifera vulgaris*; Cheval Paar, Ceylon.—1904: *Aspidogaster*.
- marginatum* Rud., 1819a, 680, t. h. *Ardea* sp.; Brazil.—1819: Dist. 1892: *Mesogonimus*. 1899: *Clínost.*
- marginatum* Mol., 1858, 128, t. h. *Anas crecca*; Batavii.—1858: Dist. 1892: D. (*Brachylaimus*).
- marilæ* Rud., 1819a, 87, t. h. *Anas marila*; Cat. Ent. Vien.—1819: Monost. [1850: *Notocotyle triseriale*.]
- marillæ* Dies., 1850a, 411, for *marilæ* (Monost.).
- marina* Garsin, 1730a, 387, t. h. *Scomber pelamys*.—1730: *Hirudinella*.
- marionis* St. Loup, 1885, 176, t. h. *Mæna vulgaris*.—1885: *Choricotyle*.
- marmorosa* Mueller, 1774, 71, in fossis aquaticis rara.—1774: Fasc. 1787: Plan.
- marsupium* Braun, 1901g, 941, t. h. *Perdix rufina*; Brazil.—1901: *Harmost.*
- martinieri* Bosc, 1811, 384, t. h. *Diodon* sp.—1811: *Capsala* (type).
- martiranoi* Stiles, 1903aa, 15, t. h. *Anopheles claviger*.—1903: *Agamodist.*

- medians* Olss., 1876, 25, t. h. *Bufo vulgaris*.—1876: Dist. 1899: *Pleurogenes*.
- medians* Olss. of Staff., 1900, Aug., 412.—1900: Dist. [1905: *Loxogenes arcanum*.]
- medioplexus* Staff., 1902, 901, t. h. American frogs and toads.—1902: *Hæmatolœchus*. 1905: *Pneumonœces*. [See *Ostiolum formosum*, type.]
- medioximus* Braun, 1901g, 895, t. h. *Galbula grandis*; Brazil.—1901: *Eumegacetes*.
- medius* Kath., 1894a, 129, t. h. *Cobitis fossilis*, *Cyprinus carpio*.—1894: *Gyrodactylus*.
- megachondrus* Looss, 1899b, 593, t. h. *Testudo* (græca?).—1899: *Enodia* (type). 1901: *Enodiotrema* (type).
- megacotyla* Dies., 1858d, 263, for Dist. *echinatoides* Pag., 1857, 32 [not Fil.], t. h. *Anodonta cygnea*; Heidelberg.—1858: Cerc. (*Nephrocephala*).
- megacotyle* Dies., 1850a, 379, D. *velellæ* Fil. renamed, t. h. *Velella spirans*; Naples.—1850: Dist.
- megacotyle* Dies., 1836d, 238, t. h. *Silurus palmito*; Matogrosso, Brazil.—1836: *Amphist*.
- megacotyle* Linst., 1906, 176, t. h. *Histiophorus* sp.; Beruwala.—1906: Trist.
- megacotylea* Villot, 1878, 30, t. h. *Mysis*.—1878: Cerc.
- megalcephalum* Brand., 1888a, 67, t. h. *Stomias* sp.; Brazil.—1888: Holost.
- megalocotyle* Mont., 1893, 52.—1893: Dist.
- megaloon* Linst., 1879, 337, t. h. *Lacerta agilis*.—1879: Dist.
- megastomum* Wagener, 1857, 57, t. h. *Cyprinus blicca*, *C. amarus*.—1857: *Dactylogyrus*.
- megastomum* Rud., 1819a, 102, t. h. *Squalus galeus*; Arimini.—1819: Dist. 1886: D. (*Brachylaimus*). 1900: *Ptychogonimus* (type).
- megastomum* Grobben, 1878a, 89, t. h. *Portunus depurator*.—1878: Dist.
- megastomum leporis* Kuhn (1829c).—1829: Dist.
- megastomus* Looss, 1902m, 533, t. h. *Chelone mydas*; Egyptian coast—1902: *Criccephalus*.
- megatocyle* Linst., 1903, 354, misprint for *megalocotyle* Mont. (Dist.).
- megnini* J. Poir., 1885, 4, t. h. a fish.—1885: Dist. 1893: D. (*Accacœlium*). [1893: D. *macrocotyle*.]
- megninii* Mont., 1893, 102, for *megnini* 1885 (Dist.).
- melanocystis* Staff., 1904, 483, t. h. *Lophius piscatorius*; Canada.—1904: *Xenodist* (type).
- melanoglena* Dies., 1855a, 393, *Melanoglena bipunctata* renamed.—1855: *Histrionella*. 1858: *Glenocerc*.
- melanoglena* Pag., 1862, 298.—1862: Cerc.
- melanops* Dies., 1855a, 400, based on Cerc. *paludinæ impuræ* Baer, 1827b, 655.—1855: *Cercariæum*. 1858: *Histrionellina*.
- melis* Schrank, 1788, 17, t. h. *Dachs*, *Meles*; Europe: *Planaria teres* Goeze, pro parte, renamed.—1788: Fasc. 1800: Dist. 1809: Plan. [1850: D. *trigonocephalum*.]
- melolonthæ* Hammerschmidt, in Leuck., 1835, 88, nomen nudum, t. h. an insect; Europe.—1835: *Klepsitromis* (type).
- mentolatum* Mueh., 1898, 19, for *mentulatum*.—1898: (Dist.).
- mentulatum* Rud., 1819a, 103, t. h. *Coluber natrix* *Lacerta agilis*, *L. maculata*; Europe—1819: Dist. 1845: D. (*Brachylaimus*). 1899: *Lepoderma*. 1899: *Plagiorchis*.
- mergi* Rud., 1819a, 121, t. h. *Mergus albellus*; C. E. V.—1819: Dist. [1850: D. *baculus*.]
- merlangi* Kuhn, 1829b, t. h. *Gadus merlangus* and *Cymothoa oestroides* on Boops.—1829: Octost. 1832: *Octobothrium*. 1832: ? Polyst. 1838–40: *Diclidophora*. 1845: *Octobothrium* (*Cyclocotyle*). 1850: [*Diclidophora longicollis*]. 1888: *Octocotyle*. 1895: *Dactylocotyle*.
- merlangi carbonarii* Dies., 1858e, 341, renamed *anonymum* 1858e, 341: based on Bellingham, 1844, 428.—1858: Dist.
- merlangi vulgaris* Dies., 1858e, 341, renamed *anonymum* 1858e, 341; based on Bellingham, 1844, 428.—1858: Dist.
- merlangorum* Dies., 1855, 64, based on Bellingham, 1844.—1855: Dist.
- merlucii* Ben. & Hesse, 1863, 1864, 105, t. h. *Merlucius vulgaris*.—1863 or 1864: *Anthocotyle* (type).
- merlucii* Ben. & Hesse, 1863, 1864, 93, t. h. *Merlucius vulgaris*.—1863: *Udonella*.
- merlucii* Tasch., 1879k, 247, for *merlucii* (*Anthocotyle*).

- meropis* Rud., 1819a, 120, t. h. *Merops apiaster*; C. E. V.—1819: Dist. [1850: *D. triangulare*.] 1896: *D. (Brachylaimus)*.
- mesocalium* Cohn, 1903, 35, t. h. *Draco volans*; Java.—1903: *Hoploderma* (type). [1907: *Pintneria*, type.]
- mesostoma* Rud., 1803a, 28, t. h. *Krametsvogel* [*Turdus iliacus*]; Greifswald, November.—1803: Fasc. 1809: Dist. 1892: *D. (Brachylaimus)*. 1902: Harmost.
- mesosternum* Linst., 1873, 101, apparently for *mesostomum* (Dist.).
- metæcus* Braun, 1900f, 389, t. h. *Vespertilio lasiopterus*, *V. noctua*; Vien. Mus.—1900: Dist. 1900: *Crepidost.* (type).
- mexicana* Vayssière, 1898, 227, t. h. *Cambarus digneti*; Mexico.—1898: *Temnocephala*.
- michælis* Mont., 1892, Oct. 7, 168, t. h. *Cantharus vulgaris*; Triest.—1892: *Cotylogaster* (type).
- micracantha* Dies., 1858d, 259, syn. *Cerc. armata* Fil., 1855b, 3–5, t. h. *Triton punctatus*, *Lymnaeus palustris*.—1858: *Cerc. (Acanthocephala)*.
- micracanthus* Stoss., 1889, 29, t. h. *Pagellus erythrinus*; Triest.—1889: Dist. 1903: *D. (Dicrocelium)*.
- micracanthus* Massa, 1903, see *micrachanthus* (*Trochopus*).
- micrachanthus* Massa, 1903, 225, t. h. *Trigla hirundo*.—1903: *Trochopus*.
- microbothorium* Fischder., 1902a, 21, for *microbothrium* (*Paramphist.*).
- microbothrium* Fischder., 1901a, 369, t. h. *Antelope dorcas*; Coll. Vien. and Vet. School, Berlin.—1901: *Paramphist*.
- microcanthus* Massa, 1906, 66, for *micracanthus* (*Trochopus*).
- microcephalum* Baird, 1853, 58, t. h. *Acanthias vulgaris*; Falmouth Harbor.—1853: Dist. [*D. veliporum.*]
- microcephalum* Crep., 1837, 311, 1849, 64, in *Corvus cornix*.—1837: Dist.
- microcephalum* Rud., 1819a, 88 lapsus for *microstomum*.—1819: *Amphist*.
- microcœcum* Rud., 1819a, 101, t. h. *Glareola austriaca*; Arimini.—1819: Dist. 1901: *Phaneropsolus*. 1892: *D. (Brachylaimus)*.
- microcotyla* Fil., 1854a, 7; 1854b, 260; t. h. *Paludina vivipara*, *P. achatina*; Lake Varese and Lombardia.—1854: *Cerc.* 1855: *C. (Xiphidiocerc.)*. 1858: *C. (Acanthocephala)* [1858: Dist. *tetracystis*.] [1905: *Cystagora*, type.]
- microcotyle* Dies., 1858e, 340, t. h. *Rhombus maximus*; Ireland; based on Bellingham, 1844, 428.—1858: Dist.
- microcristata* Erc., 1881 or 1882, see Par., 1894, 161, t. h. *Bythinia cristata*; Bologna.—1881?: *Cerc.*
- microdactyla* Mont., 1903, 1, t. h. *Dilocarcinus septemdentatus*; Mattò Grosso.—1903: *Temnocephala*.
- micropharyngeum* Luehe, 1898g, 623, t. h. *flamingo*; Berberei.—1898: Dist. 1900: *Gymnophallus*.
- microphylla* Ben., 1870, 70, t. h. *Osmerus eperlanus*.—1870: Dist.
- microporum* Mont., 1889, 322, t. h. *Plagyodus ferox*; Madeira.—1889: Dist. 1891: *Apoblema*. 1899: *Hemiurus*.
- micropteri* Marshall & Gilbert, 1905, 481, t. h. *Micropterus salmoides*, *M. dolomieu*; near Madison, Wis.—1905: *Leuceruthrus* (type).
- micropterygis* Richardi, 1902, 4, t. h. *Micropteryx dumerilii*.—1902: *Didymozoon*. 1902: Monost. 1902: *Didymost.* [1902: *D. bipartitum.*]
- microsoma* Rud., 1809a, 109, t. h. *Perca marina*; Naples.—1819: Dist.
- microsolum* Dies., 1850a, 370, for *microsoma* (Dist.).
- microstomum* Rud., 1809a, 50, t. h. *Pleuronectes solea*; Paris.—1809: Dist.
- microstomum* Rud., 1809a, 342, t. h. *Corvus caryocatactes*; Greifswald, Europe.—1809: *Amphist.* 1845: *Holost.*
- microstomum* Crep., 1829, 49, t. h. *Fulica atra*; Greifswald.—1829: Monost. [1850: *M. mutabile.*]
- microtyla* Moul., 1856a, 80, for *microcotyle* (*Cerc.*).
- micrura* Fil., 1857c, 5, t. h. *Paludina impura*.—1857: *Cerc.* 1858: *C. (Acanthocephala)*. [1894: Dist. *globiporum.*]
- midæ* Dies., 1850a, 325, for *mydæ*.—Planaria. [1850: Monost. *trigonocephalum.*]
- midas* Kuhl & van Hasselt, (1824 or 1822?).—Polyst.
- miescheri* Zschokke, 1890, 764, t. h. *Trutta salar*.—1890: Dist. (*Cladocœlium*).

- miescherii* Mont., 1893, 153, for *miescheri* (Dist.).
- migrans* Duj., 1845a, 407, *Brachylaimus advena* renamed, hence type of *Brachylaima*; hosts *Sorex araneus*, *S. leucodon*.—1845: Dist. (*Brachylaimus*, type).
- migras* Stoss., 1892, 19, misprint for *migrans* 1845 (Dist.).
- miliaris* Brown, 1881, 329, misprint for *militare* 1803 (Dist.).
- militaris* Rud., 1803a, 30, t. h. *Scolopax arquata*; Greifswald, January.—1803: Fasc. 1809: Dist. (*Echinost.*). 1860: *Echinost.*
- milvi* Gmelin, 1790a, 3054, t. h. *Milvus*.—1790: Fasc. 1803: Dist. [1819: *D. echinocephalum*.]
- minima* Ben., 1870, 67, t. h. *Clupea sprattus*.—1870: Dist.
- minimum* Wagener, 1852, 558, t. h. *Trigla microlepidota*.—1852: *Gasterost.*—1858: *Rhipidocotyle*.
- minimum* Stoss., 1887, 96, t. h. *Labrax lupus*; Triest.—1887: *Gasterost.*
- minor* Haswell, 1887a, 284, t. h. *Astacopsis bicarinatus*; New South Wales.—1887: *Temnocephala*.
- minor* St.-Remy, 1898, 551, minus Olsson, 1876 [*Octobothrium*] renamed.—1898: *Dactylocotyle*.
- minor* Wagener, 1857, 60, t. h. *Cyprinus alburnus*.—1857: *Dactylogyrus*.
- minor* Goto, 1894a, 205, t. h. *Scomber colias*; Japan.—1894: *Octocotyle*.
- minor* Mont., 1888, 16, t. h. *Scyllium*.—1888: *Pseudocotyle*. 1905: *P. (Leptocotyle, type)*.
- minor* Looss, 1901d, 437, t. h. *Labrus merula*; Triest.—1901: *Derogenes*.
- minus* Cerf., 1898b, 330, t. h. *Raja* sp.; Roscoff.—1898: *Merizocotyle*.
- minus* Olss., 1876, 10, t. h. *Gadus melanostomus*.—1876: *Octobothrium*.
- minuta* Looss, 1899b, 585, t. h. dogs and cats at Cairo and *Ardea cinerea* at Damietta, Egypt.—1899: *Ascocotyle*.
- minuta* Erc., 1881 or 1882, see Par., 1894, 163, t. h. *Bythinia tentaculata*; Bologna.—1881?: *Cerc.*
- minuta* Nitzsch, 1817, 46, in various fresh-water mollusks; Halle.—1817: *Cerc.* 1855: *C. (Eucercaria)*. 1858: *C. (Gymnocephala)*.
- minutissimum* Stoss., 1896, 130, t. h. *Anas boschas*; Doberdò.—1896: *Monost.*
- minutissimus* Looss, 1901, 618, t. h. *Chelone mydas*; Egypt.—1901: *Pleurogonius*.
- minutum* Cobbold, 1859d, 364, t. h. *Hæmatopus ostralegus*.—1859: Dist.
- minutus* Looss, 1901e, 604, t. h. *Uranoscopus scaber*; apparently Triest.—1900: *Stephanochasmus*.
- minutus* Fischder., 1901, 372, t. h. *Antilope* sp., *Tragelaphus scriptus*; Kamerun.—1901: *Gastrothylax*.
- miocerca* Mont., 1888, 77, for *myocerca* (*Cerc.*).
- mirabilis* Braun, 1891c, 218, t. h. *Limnæus palustris* var. *corvus*.—1891: *Cerc.*
- mirus* Looss, 1901d, 439, t. h. *Labrus merula*; Triest.—1901: *Zoogonus* (type).
- mistroides* Mont., 1896, 144, constrictum Leared. renamed.—[1896: Dist.] [1896: *Mesogonimus*.] [1908: *Haplotrema* (type).]
- mitsukurii* Goto, 1894a, 227, t. h. *Rhina* sp.; Mitsugahama, Japan.—1894: *Calicotyle*. 1898: *Calycotyle*.
- [*modestum* Sluiter, 1898 (Dist.), a tunicate.]
- molæ* Bl., 1847a, 326, t. h. *Orthagoriscus mola*.—1847: Trist. [1850: *T. rudolphianum*.]
- molæ* MacLaren, 1904, 573, t. h. *Orthagoriscus mola*.—1904: *Nematobothrium*.
- molæ* Rud., 1819a, 87, t. h. *Orthagoriscus mola*; Naples.—1819: *Monost.* [1850: Dist. *okenii*.]
- moleculum* Linst., 1880, 51, t. h. *Rallus pygmæus*.—1880: Dist. 1892: *D. (Brachylaimus)*.
- molini* Polonio, 1859, teste Par., 1894, 148, t. h. *Rana esculenta*; Padua.—1859: Dist.
- molini* Par., 1894, 148, for *molini*, 1859 (Dist.).
- molle* Leidy, 1856, 43, t. h. *Sternotherus odoratus*; U. S. A.—1856: *Monost.* 1894: Dist. (*Polyorchis*). 1896: *Polyorchis*. 1896: *Pleorchis*.
- mollis* Wedl, 1857, 272, t. h. *Cyprinus carpio*.—1857: *Gyrodactylus*. 1858: *Dactylogyrus*.
- mollissimum* Mont., 1893, 96, for *mollissimum* (*Apoblema*).

- mollissimum* Levin., 1881, 59, t. h. *Cottus scorpius*; Egedesminde.—1881: Dist. 1886: D. (Apoblema). 1889: Apoblema. 1889: Hemiurus. [1905: *Lecithaster gibbosus*.] 1907: *Lecithaster*.
- mollissimum* Mont., 1891, 521, for *mollissimum* (Apoblema).
- mollissimum* Mont., 1891, 520, for *mollissimum* (Apoblema).
- molva* Ben. & Hesse, 1863, 1864, 94, t. h. *Lota molva*.—1863, 1864: *Pteronella* (type). 1878: *Udonella*.
- molva* Cerf., 1895h, 944.—1895: *Dactylocotyle*.
- mona* Rud., 1819a, 679, t. h. *Amphisbæna* sp.; Brazil.—1819: Dist. 1896: D. (*Brachylaimus*).
- monenteron* Wagener, 1857, 52, etc., t. h. *Esox lucius*.—1857: *Dactylogyrus*. 1858: *Tetraonchus*, probably type.
- mongeotii* Bory de St.-Vincent, 1823a, 354, in water.—1823: *Cerc*.
- monorchis* Stoss., 1890, 40, t. h. *Cantharus orbicularis*; Triest.—1890: Dist. 1893: D. (*Monorchis*, type). 1902: *Monorchis*, type.
- monostomi* Linst., 1896i, in 375, perhaps young of *Monost. mutabile*, t. h. *Lymnæa ovata*, L. peregra; Germany.—1896: *Cerc*.
- monroi* Goodsir, (1844), t. h. *Gadus morrhua*.—1844: *Neuronaia*, type.
- monroii* Goodsir, teste Gulliver, 1872, 103, see *monroi* (*Neuronaia*).
- monstruosum* Braun, 1901, 944, t. h. *Corone venustissima*; West Indies.—1901: *Ochetosoma* (type).
- monticelli* Mont., 1902, 143, for *monticellii* (*Epibdella*).
- monticellii* Lint., 1898, 518, t. h. *Remora remora*; Woods Hole.—1898: Dist. 1899: *Hemiurus*.
- monticellii* Stoss., 1904, 2, t. h. *Tropidonotus viperinus*, intestine; Naples.—1904: *Asiotrema*.
- monticellii* Scott, 1902, 300, t. h. *Raia clavata*; Scotland.—1902: *Acanthocotyle*.
- monticellii* Par. & Perugia (1895), 2.—1895: *Phylline*. 1896: *Epibdella* (*Phylline*). 1903: E. (*Benedenia*).
- mordax* Looss, 1899b, 688, t. h. *Pelecanus onocrotalus*; Egypt.—1899: *Echinost.*
- mordens* Braun, 1901g, 941, t. h. *Rallus* sp.; Brazil.—1901: *Harmost*.
- mormiri* Mont., 1888a, 34, for *mormyri* (*Microcotyle*).
- mormyri* Lorenz, 1878a, 21, t. h. *Pagellus mormyrus*; Triest.—1878: *Microcotyle*.
- mormyri* Stoss., 1885, 160, t. h. *Pagellus mormyrus*; Triest.—1885: Dist. 1886: D. (*Brachylaimus*). [1899: ?*Creadium*.]
- mormyris* Hausmann, 1897b, 28, for *mormyri* (Dist.).
- morrhua* Ben. & Hesse, 1863, 106, t. h. *Gadus morrhua*.—1863: *Pterocotyle*. 1879: *Ocotothrium*. 1890: O. (*Pterocotyle*). 1898: *Dactylocotyle*.
- motella* Ben., 1870, 63, t. h. *Motella mustela*.—1870: Dist.
- [*mucosum* von Dr. (Dist.), a tunicate.]
- mühlingi* Jägers., 1899a, 7, t. h. *Larus ridibundus*; Pillau.—1899: Dist. 1899: *Tocotrema*.
- mühlingi* Looss, 1899b, 586, for *mühlingi* (*Tocotrema*).
- muellerii*, see *mülleri* (Dist.).
- mülleri* Cobbold, 1860a, 50, t. h. *Petromyzon fluviatilis*.—1860: *Diplost*.
- mülleri* Levin., 1881a, 56, t. h. *Cottus scorpius*, *Gadus ovak*; Egedesminde.—1881: Dist. 1886: D. (*Brachylaimus*). 1899: *Progonus* (type). [1902: *Genarches* (type).] 1905: *Genarches* (type).
- mugilis* Vogt, 1878, 327, t. h. *Mugil cephalus*; Roscoff.—1878: *Microcotyle*.
- mugylis* Sons., 1891, 253, for *mugilis* (*Microcotyle*).
- mullerii* Mont., 1888, 34, 37, for *mülleri* (Dist.).
- nulli* Stoss., 1883, 114, t. h. *Mullus barbatus*; Triest.—1883: Dist. 1886: D. (*Echinost.*).
- multilobum* Cobbold, 1860a, 46, t. h. *Charadrius pluvialis*.—1860: *Holost*.
- munroi* Brown, 1899a, 490, for *monroi* (*Neuronaia*).
- murænula* Cobbold, 1860a, 43, for *marænula* (*Monost.*).—[1860: M. *braunii*.]
- muris* Erc., 1882c, pl. 3, figs. 16–21.—1882: Dist.

- muris hepatica* Röederer, 1762, 537, t. h. *Mus musculus*; Germany.—1762: Fasc. [1905: *Cysticercus fasciolaris*.]
- musculi* Rud., 1819a, 119, t. h. *Mus musculus*; Cat. Vien.—1819: Dist. [See *D. recurvum*.]
- musculicola* Waldenburg, 1860, 12, t. h. *Cyprinus*, *Perca fluviatilis*.—1860: Holost. 1892: Diplost. 1894: Tetracotyle.
- musculorum* Braun, 1893, 871, *musculorum percæ*, 1860, renamed; in *Perca fluviatilis*.—1893: Dist.
- musculorum percæ* Waldenburg, 1860, 16, t. h. *Perca fluviatilis*.—1860: Dist.
- musculorum suis* Duncker, 1896, 279, t. h. *Sus scrofa dom.*; Germany.—1896: Dist. [1898: *Agamodistomum suis*.]
- musculosum* Johnston, 1904, 112, t. h. *Sterna bergii*.—1904: Holost.
- musculum* Brett, 1880a, 453, t. h. *Ovis aries*.—1880: Dist.
- mutabile* Mol., 1859, 833, t. h. *Podarcis muralis*; Padua, Italy.—1859: Dist. 1895: *D. (Dicrocoelium)*. 1901: *Dicrocoelium*. 1902: *Anchitrema*.
- mutabile* Zed., 1800a, xvi, t. h. *Fulica chloropus*; Germany.—1800: Monost. 1809: Monost. (Monost.). 1835: *Amphist.* 1890 (1888?): Monost. (type). [1892: *Cyclocœlum*, type.] [1901: *Cyclocœlum*, type.] 1902: *Cyclocœlum* (type). 1904: (*Cyclocœlum*).
- mutabile* Dies., 1850a, 301, *Diplodiscus diesingi* renamed, t. h. *Planorbis nitidus*; Ticini.—1850: *Diplocotyle* (type). 1894: *Diplodiscus* (*Diplocotyle*). [1858: *Diplodiscus subclavatus*.]
- mutabilis* Schrank, 1803, 210.—1803: Fasc.
- mutabilis* Dies., 1850a, 317, *urnigerum* 1819 renamed, t. h. *Pelophylax esculentus*; Europe.—1850: *Codonocephalus* (type). 1896: *Diplost.* (*Codonocephalus*).
- mutabilis* Dies., 1839a, 234, t. h. *Cataphractus n. sp.* [*Cichla temensis*]; Rio Negro, Brazil.—1839: *Aspidocotylus* (type). 1850: *Aspidocotyle* (type).
- mutabilis* Stoss., 1902, 579, t. h. *Anguillula vulgaris*; Triest.—1902: *Loborchis*. 1903: *Helicometra*.
- mutabilis* Eichwald, ———: *Planaria*.
- mydæ* Braun, in Rud., 1809a, 336, as syn. of *Monost. trigonocephalum*.—1809: *Planaria*.
- mydæ*, see *midas* (Polyst.).
- mydas*, see *midas*.
- myliobatis* Tasch., 1878, 574, t. h. *Myliobatis aquila*; Naples.—1878: *Monocotyle* (type).
- myocerca* Villot, 1878, 32, t. h. *Scrobicularia tenuis*.—1878: *Cerc.*
- mystacidis* Linst. 1896i, 379, t. h. *Mystacides nigra*.—1896: Dist.
- myzura* Pag., 1881, 18, t. h. *Neritina fluviatilis*.—1881: *Cerc.*
- naia* Duj., 1845a, 387, for *naja*.—1845: Dist. (*Dicrocoelium*).
- naidis proboscidiæ* Dies., 1858d, 283.—1858: *Cercariæum*.
- naja* Rud., 1819a, 99, t. h. *Coluber natrix*; Berlin.—1819: Dist. 1845: *D. (Dicrocoelium)*. 1899: *Macrodera* (type). 1902: *Saphedera* (type).
- nana* Rud., 1802b, 68, t. h. *Scolopax gallinula*; Greifswald, July.—1802: Fasc. 1809: Dist. 1901: *Plagiorchis*.
- nanodes* Braun, 1901g, 942, t. h. *Falco nitidus*; Brazil.—1901: *Uroorygma* (type).
- nardoi* Polonio, 1859, see Par., 1894, 147, t. h. *Lacerta muralis*; Padua.—1859: Dist.
- nassæ mutabilis* Fil., 1855b, 22.—1855: Dist.
- natator* Claparède, 1863a, 13, free.—1863: *Onchogaster* (type).
- nattereri* Cobbold, 1860a, 52, *cornu* Dies., 1839a, renamed; t. h. *Callichthys vacu*; Brazil.—1860: *Amphist.*
- negacotyle* Dies., 1850a, 379, misprint for *megacotyle* (Dist.).
- neglecta* Fil., 1854b, 278, t. h. *Lymnæus pereger*; prope Augustam Taurinorum.—1854: *Cerc.* 1855: *C. (Eucercaria)*. 1858: *C. (Gymnocephala)*.
- neglectum* Linst., 1887d, 101, t. h. *Rana temporaria*.—1887: Dist. 1889: *D. (Dicrocoelium)*. [1899: *Pleurogenes claviger*.]
- nematoides* Cohn, 1904, 238, t. h. *Aquila albicilla*.—1904: *Pronopharynx* (type).
- nematoides* Crep., 1846, 129, t. h. *Falco albicilla*.—1846: Monost.
- nematoides* Mueh., 1898, 18, t. h. *Tropidonotus natrix*; East Prussia.—1898: Dist. 1899: *Telorchis*.

- nephriticum* Mehlis, in Crep., 1846, 138, t. h. *Colymbus arcticus*.—1846: Monost. 1904: Eucotyle (type).
- nephrocephalum* Dies., 1850a, 391, t. h. *Turdus saxatilis*; M. C. V.—1850: Dist. 1860: Echinost.
- nephrocephalum* Dies., 1858e, 327, in *Sphargus coriacea*; N. America; renicapite Leidy, 1856, renamed.—1858: Monost.
- nephrops* Cunningham, 1884a, 399, t. h. *Nephrops norvegicus*; Firth of Forth.—1884: Stichocotyle (type).
- neuronaia monroii* Maddox, 1867, 97, see *monroii*.—1867: Dist.
- neuronaia monroii* Cobbold, 1872b, 52, for *neuronaia monroii* (Dist.).
- nigra* Mueller, 1774, 54, in rivo.—1774: Fasc. 1787: Planaria.
- nigrescens* Olss., 1876, 19, t. h. *Lophius piscatorius*.—1876: Dist.
- nigroflavum* Rud., 1819a, 118, t. h. *Orthagoriscus mola*; Naples.—1819: Dist. (Echinost.). 1893: D. (Accacœlium). 1899: Accacœlium. 1903: Echinost.
- nigropunctatum* Linst., 1883, 310, t. h. a bird "Akatzä;" Turkestan.—1883: Monost.
- nigrostavum* Deslongchamps, 1829, 238, misprint for *nigroflavum* Rud. (Dist.).
- nigrovenosum* Bellingham, 1844, 429, t. h. *Tropidonotus natrix*; England.—1844: Dist. 1895: D. (Dicrocœlium). 1899: Lecithodendrium. 1902: Brachycœlium.
- nigrovenosum natrixis torquatzæ* Dies., 1855, 64, based on Bellingham, 1844.—1855: Dist.
- nigrum* Linst., 1883, 307, t. h. *Corvus cornix*.—1883: Dist.
- nipponicum* Goto, 1891a, 151, t. h. *Carassius vulgaris*.—1891: Diplozoon.
- nitens* Lint., 1898c, 534, t. h. *Tylosurus caribbæus*; Woods Hole.—1898: Dist.
- nitidum* Leidy, 1856, 45, t. h. *Rana pipiens*.—1856: Holost.
- [*nitidum* Sluiter, 1898, 17 (Dist.), a tunicate.]
- noctulæ* Cobbold, 1860a, 39, *vespertilionis* Rud., renamed, t. h. *Vespertilio noctula*.—1860: Monost.
- noctulæ* Rud., 1819a, 119, t. h. *Vespertilio noctula*; C. E. V.—1819: Dist.
- nocturnus* Looss, 1907, 479, t. h. *Athene noctua*; Egypt.—1907: Philophthalmus.
- nodulosa* Linst., 1873, 3, t. h. *Bythinia tentaculata*.—1873: Cerc. [1894: C. virgula Fil.]
- nodulosa* Frœlich, 1791, 76, includes *percæ cernuæ* 1776, t. h. *Perca cernua*, P. fluviatilis.—1791: Fasc. 1800: Dist. 1845: Dist. (Crossodera, type). 1860: Crossodera. [1896: Bunodera, type.] 1899: Bunodera, type.
- non coronata* Crep., 1837a, 326.—1837: Dist. [As name of a group of distomes.]
- nordmanni* Dies., 1850a, 428, t. h. *Brama mediterranea*.—1850: Encotyllabe (type). 1878: Trist. 1890: Plectanocotyle.
- normanni* Braun, 1890a, 550, for *nordmanni* (Encotyllabe).
- notidobiæ* Linst., 1896i, 379, t. h. *Notidobia ciliaris*.—1876: Dist.
- notulata* Bosc, 1802a, 254.—1802: Planaria.
- novæ-zelandiæ* Haswell, 1887a, 284, t. h. *Paranephrops setosus*; New Zealand.—1887: Temnocephala.
- noverca* Braun, 1902, 836, "conjunctum Cobbold" of Lewis & Cunningham, 1872, renamed, t. h. *Homo*; India.—1902: Opisthorchis. 1907: Dist.
- nozawaæ* Goto, 1894a, 249, t. h. *Thynnus sibi*; Japan.—1894: Trist.
- obesa* Ben., 1870, 33, t. h. *Cottus scorpius*.—1870: Dist.
- obesum* Looss, 1902h, 135, t. h. *Mugil auratus*, M. cephalus, M. chelo; Trieste.—1902: Saccocœlium (type).
- obesum* Dies., 1850a, 361, t. h. *Leporinus friderici*, *Salminus brevidens*, *Xiphostoma cuvieri*; Brazil.—1850: Dist.
- obesus* Crep., 1851b, 292, t. h. *Lacerta agilis*.—1851: Tetrathyrsus (type). 1866: Petratthyrsus. [Monost. lacertæ.] [1860: Monost. gurltii.] [Dithyridium. Piesticystis, cestode.]
- obliquus* Looss, 1901, 30 Oct., 566, "trigonocephalus Rud." of Looss, 1899b, 666, 756, figs. 84–86.—1901: Pronocephalus (type).
- oblonga* Cobbold, 1858b, 168, t. h. *Delphinus phocæna*.—1858: Campula (type). 1891: Dist. 1892: D. (Brachylaimus). 1898: Opisthorchis.
- oblongum* Mont., 1888a, 57, for *oblongum* (Polyst.).

- oblongum* Cobbold of Braun, see Looss, 1902m, 716 (*Brachycladium*).
- oblongum* R. Wright, 1879, 12, t. h. *Aromochelys* (*Sternothærus*) *odoratus*; Toronto, Canada.—1879: Polyst.
- obovatum* Mol., 1858, 288, t. h. *Chrysophris aurata*; Padua.—1859: Dist. 1886: D. (*Brachylaimus*). [1899: *Creadiina*.] 1901: *Allocreadium*.
- obscura* Mueller, 1774, 65, in piscinis.—1774: Fasc. 1776: *Planaria*.
- obscura* Sons., 1892, Oct. 7, 138, t. h. *Limnæa natalensis*; Cairo, Egypt.—1892: Cerc.
- obscurum* Staff., 1904, 484, t. h. *Lophius piscatorius*; Canada.—1904: *Leptosoma* (type).
- obscurum* Leidy, 1887, 24, t. h. *Megalops thrissoides*; Coll. Army Med. Mus., Wash.—1887: Monost.
- obtusum* Looss, 1896b, 78, t. h. *caméléon*, Alexandria, Egypt.—1896: Dist. 1899: *Lecithodendrium*.
- occidentalis* Nickerson, 1900, 250, t. h. sheephead; Mississippi Valley.—1900: *Cotylogaster*.
- occidialis* Staff., 1905, 687, t. h. *Rana clamata*, R. *catesbiana*; Canada.—1905: *Halipegus*.
- occultum* Staff., 1905, 682, t. h. *Diemyctylus viridescens* Raf., *Rana virescens*; Canada.—1905: *Manodist.* (type).
- ocellata* LaValette, 1855, 22, t. h. *Limnæus stagnalis*.—1855: Cerc. [1858: *Histrionellina fissicauda*.]
- ocellatum* Rud., 1819a, 125, t. h. *Testudo orbicularis*; Arimini.—1819: Polyst. 1828: *Hexacoctyla*. 1828: *Hexacoctyle*.
- ochreateum* Nitzsch, in Giebel, 1857, 265, t. h. *Falco haliaëtus*.—1857: Holost.
- ocreata* Rud., 1802b, 79, *halicis* 1790 renamed; t. h. *Clupea harengus*.—1802: Fasc. 1809: Dist. 1845: D. (*Apoblema*). 1889: *Apoblema*. 1899: *Pronopyge* (type).
- ocreata* Gœze, 1782a, 182, t. h. *Maulwurf*; Europe.—1782: Fasc. 1788: *Cucullanus*. 17—: *Festucaria* (*Schrank*). 1800: Monost. 1809: M. (Monost). 1899: Dist. [1899: *Itygonimus*, type.] 1902: *Itygonimus*. [*Distomum lorum*.]
- ocreatum* Mol., of Olss., 1868, 48.—1868: Dist. 1891: *Apoblema*. 1899: *Hemiurus*. [1905: *Brachyphallus crenatus* (Rud.).]
- ocreatum* Rud. of Mol., 1858, 209, in *Clupea alosa*; Padua.—1858: Dist.
- octopodis* Cuvier, 1829b, 147.—1829: *Hectocotylus* (type).
- octopodis* delle Chiaje, 1841, 139.—1841: Dist.
- octopodis* delle Chiaje, teste Par., 1894, 169, t. h. *Octopus vulgaris*; Naples.— —: Monost.
- ocular* de Bonis, 1882, 180, for *oculare*.—1882: Dist. [*Agamodist. ophthalmobium*.]
- oculare* Moquin-Tandon, 1860, 347, for D. *oculi humani*.—1860: Dist. 1860: Fasc. [*Agamodist. ophthalmobium*.]
- oculatum* Levin., 1881a, 64, t. h. *Cottus scorpius*; Egedesminde.—1881: Dist. 1886: D. (*Echinost.*). 1905: *Acanthopsolus* (type).
- oculi humani* Gescheidt, 1833, 434, t. h. *Homo*; Dresden, Saxony.—1833: Dist. 1858: *Dicrocoelium*. [*Agamodist. ophthalmobium*.]
- oculis* Moquin-Tandon, 1861, 375, for *ocularis*.—1861: Fasc. [*Agamodist. ophthalmobium*.]
- oculobium* Cohn, 1902d, 712, t. h. *Vanellus melanogast.*; Greifswald coll.—1902: Monost.
- odontocotyla* Dies., 1858d, 264, t. h. *Limnæus stagnalis*; Berlin.—1858: Cerc.
- osophagi ardæ nigræ* Viborg, 1795, 242.—1795: Dist. [1850: D. *hians*.]
- oidemæ nigræ* Dies., 1858e, 322, based on Bellingham, 1844a, 340.—1858: *Amphist.* [1858: *Holost. anatis nigræ*.]
- okeni* Ariola, 1906, 186, for *okenii* (Dist., *Köllikeria*).
- okenii* Kölliker, 1849c, 55, t. h. *Brama raji*.—1849: Dist. [1860: *Köllikeria*.]
- okul' humani* Schneidemuëhl, 1896, 302, for *oculi humani*.—1896: Dist.
- oligoon* Linst., 1887d, 103, t. h. *Gallinula chloropus*.—1887: Dist. 1892: D. (*Brachylaimus*).
- oligoterus* Mont., 1899, 76, t. h. *Raja clavata*; Naples.—1899: *Acanthocotyle*.
- oloris* Dies., 1855, 64, based on Bellingham, 1844, 427.—1855: Dist.
- olsoni* Odhn., 1905, 326, t. h. *Gadus melanostomus*; Lumprenus maculatus from west coast of Sweden.—1905: *Podocotyle*.

- olssoni* Rail., 1900, 239, t. h. *Apus apus*.—1900: *Dicrocoelium*.
onchacanthus Massa, 1906, 44, t. h. unknown; Triest.—1906: *Trochopus*.
onchidiocotyle Setti, 1899, 121, t. h. "tonno;" Portoferraio.—1899: *Trist*.
onycephalum Galli-Valerio, 1898, 923, misprint for *oxycephalum* (Dist.).
opaca Bory de St. Vincent, 1823a, 354, in infusions de pois.—1823: *Cerc*.
opaca Staff., 1902, 416, t. h. *Bufo lentiginosus*; America.—1902: *Gorgodera*. 1905: *Gorgoderina*.
opacum Ward, 1894, 173, t. h. *Amia calva*, *Cambarus propinquus*, *Ictalurus punctatus*, *Perca flavescens*; Lake St. Clair.—1894: *Dist*. 1894: *D.* (*Brachycoelium*). 1899: *Levinsenia*. 1901: *Microphallus* (type).
operculata Herbst, 1787a, 36.—1787: *Planaria*.
ophthalmobium Dies., 1850a, 334, *oculi humani* renamed; Dresden.—1850: *Dist*. 1892: *Agamodist*.
ophthalmothium Luehe in Stiles, 1903u, 223, for *ophthalmobium* (*Agamodist*.).
opisthotrias Lutz, 1895, 181, t. h. *Didelphys aurita*.—1895: *Dist*. 1899: *Harmost*. 1899: *Heterolope*.
orbicolare Sons., 1891, 262, misprint for *orbiculare* (*Monost*.).
orbiculare Dies., 1850a, 349, t. h. *Cebus trivirgatus*; Brazil.—1850: *Dist*. 1901: *Phaneropsolus*.
orbiculare Rud., 1819a, 83, t. h. *Sparus salpa*; Naples.—1819: *Monost*. (*Monost*.). 1901: *Mesometra* (type).
orbis Mueller, 1786, 138, in aqua, ubi *Lemna*, rarissime.—1786: *Cerc*. 1815: *Furcoerca*. 1827: *Lecane*.
orcola Leidy, 1884a, 47, t. h. *Alligator mississippiensis*; Florida.—1884: *Dist*. [1895: *D. pseudostomum*.]
orcola Mont., 1892, 715, misprint for *orcola* (*Dist*.).
ornata LaValette, 1855, 18, t. h. *Planorbis corneus*.—1855: *Cerc*. 1858: *C.* (*Acanthocephala*). [1858: *Dist. clavigerum*, type of *Pleurogenes* 1899.]
ornata Will.-Suhm, 1870, 9, t. h. *Alligator lucius*; Charleston.—1870: *Polycotyle* (type).
ornata Odhn., 1902, 22, t. h. *Nilkrokodil*.—1902: *Stephanoprora* (type).
ornatum Leidy, 1856, 43, t. h. *Rana pipiens*; Phila.—1856: *Monost*.
ornatum Cobbold, 1882a, 240, t. h. *Elephas indicus*; India.—1882: *Amphist*. 1895: *Pseudodiscus*.
ornithorhynchi Johnston, 1901, 334, t. h. *Ornithorhynchus anatinus* Shaw.—1901: *Dist*.
orphii Ben. & Hesse, 1863, 116; 1864, 116, t. h. *Esox belone*.—1863: *Axine*. [1879: *A. belones*.]
orthogorisci molæ Dies., 1855, 64, based on *Bellingham*, 1844, 429.—1855: *Dist*. [1850: *D. macrocotyle*.]
orthocelium Fischder., 1901, 369, t. h. *Bos kerabau*; Ceylon.—1901: *Paramphist*.
osculatum Looss, 1901, 654, t. h. *Motella vulgaris*.—1901: *Dist*.
osleri R. Wright, 1879, 66, t. h. *Necturus lateralis*? Canada.—1879: *Sphyrnura* (type).
oslerii Mont., 1888a, 8, for *osleri* (*Sphyrnura*).
oti Rud., 1819a, 354, for *otidis*, syn. of *macrocephalum*.—1819: *Festuc*.
otidis Frœlich, 1802, 53, t. h. *Strix otus*.—1802: *Festuc*. [*Amphist. macrocephalum*.]
ovale Goto, 1894a, 241, t. h. *Histiophorus orientalis*; Misake, August.—1894: *Trist*. [1899: *T. læve*.]
ovalis Schrank, 1803, 86.—1803: *Cerc*.
ovata Villot, 1878, 20, t. h. *Lygia oceanica*.—1878: *Cerc*.
ovata Rud., 1803a, 25, t. h. *Corvus frugilegus*.—1803: *Fasc*. 1809: *Dist*. 1845: *Dist*. (*Dicrocoelium*). 1892: *Cephalogonimus*. 1896: *D.* (*Cephalogonimus*). 1899: *Prosthogonimus* (type). 1899: *Prymnoprion* (type). 1901: *Prosthogonimus* (type). 1902: *Prosthogonimus*.
ovata Linst., 1877, 192.—1877: *Tetracotyle*. [1894: *Holost. variegatum*.]
ovata Goto, 1894a, 234, t. h. *Anthias schegeli*; Misaki, Japan, August.—1894: *Epibdella*. 1902: *Trist*. 1903: *E.* (*Benedenia*).
ovatum Lint., 1900, 269, t. h. *Lobotes surinamensis*; Woods Hole.—1900: *Gasterost*.
ovatum Dies., 1850a, 302, for *Dist. luteum* Baer, 2, 610, pl. 29, figs. 20–22, in *Paludina vivipara*; *Regiomontii*.—1850: *Heterost*. 1858: *Cercariæum*. [1858: *Dist. luteum* Wagener.]

- ovatum* Mol., 1859, 822, t. h. *Gallinula crex*; Batavii.—1859: Monost.
- ovicola* Brand., 1894a, 303, t. h. *Arius commersonii*; Brazil.—1894: *Fridericianella* (type).
- oviforme* Poir., 1886, 26, t. h. *Nycticebus javanicus*.—1886: Dist. 1892: Dist. (*Brachycelium*). 1899: *Phaneropsolus*. 1899: *Lecithodendrium*.
- ovis* Cobbold, 1885a, 499, t. h. *Ovis*.—1885: *Bilharzia*.
- ovocaudatum* Vulpian, 1859, 150, t. h. *Rana viridis*.—1859: Dist. 1899: *Halipegus* (type).
- ovofarectum* Odhn., 1902, 153, t. h. *Synodontis* sp.; Omdurman.—1902: Dist.
- ovopunctatum* Stoss., 1902, 15, t. h. *Numenius arquata*.—1902: *Cyclocœlum*.
- ovum* Crep., 1846, 159, t. h. *Planorbis marginatus*.—1846: Dist.
- oxycephalikum* Schneidemuehl, 1896, 303, for *oxycephalum* (Dist.).
- oxycephalum* Rud., 1819a, 98, t. h. *Anas boschas*, *A. clypeata*.—1819: Dist. 1896: *Echinost.*
- oxycephalum* Dies., 1836d, 238, t. h. *Salmo auratus*, *S. pacu* and *Silurus megacephalus* at Cuyaba, and *Salmo pacupeba* at Rio Panara and Rio Araguay; Brazil.—1836: *Amphist.* 1905: *Chiorchis*.
- oxyurum* Crep., 1825, 48, t. h. *Anas marila*; Germany.—1825: Dist. 1902: *Psilost.*
- pachisomum* Par., 1894, 155, for *pachysoma* (Dist.).
- pachycerca* Dies., 1858d, 257, includes *C. brachyura* Lespés, t. h. *Trochus cinereus*; Francogalliæ.—1858: *Cerc.* (*Acanthocephala*).
- pachycerca* Claparède, 1863a, 12, free form; St. Vaast.—1863: *Cerc.*
- pachyderma* Braun, 1899a, 629, t. h. *Chelone atra*.—1899: Dist.
- pachysoma* Eysenhardt, 1829, 144, t. h. *Mugil auratus*.—1829: Dist. 1886: *D.* (*Podocotyle*). 1893: *D.* (*Monorchis*). 1898: *Podocotyle*. 1902: *Haplospilchnus* (type).
- pacifica* Steenstrup, 1842, 74.—1842: Dist.
- pacifica* Ben., 1858a, 1861a, 86, as syn. of *Dist. militare*.—1858: *Cerc.*
- pagelli* Ben., 1870, 1871a, 43, t. h. *Pagellus centrodonatus*; Belgium.—1870: Dist. 1886: *D.* (*Cladocœlium*).
- pagelli* Ben. & Hesse, 1863, 80, t. h. *Pagellus centrodonatus*.—1863: *Encotyllabe*. 1878: *Trist.*
- pagenstecheri* Ssinitzin, 1905, 34, *Dist. cygnoides* Zed. of *Pag.*—1905: *Gorgodera*.
- palæmonis* Linst., 1877b, 186, t. h. *Palæmon serratus*.—1877: Dist.
- [*palea* (Nitzschia), a diatom.]
- palliatum* Braun, 1892a, 608, misprint for *palliatum* (Dist.).
- pallasi* Poir., 1885, 13, t. h. *Delphinus phocæna*.—1885: Dist. 1892: *D.* (*Dicrocœlium*).
- palleniscum* Shipley & Hornell, 1905, 53, t. h. *Balistes* sp.; Ceylon.—1905: Dist.
- pallens* Rud., 1819a, 111, t. h. *Sparus aurata*; Naples.—1819: Dist. 1886: *D.* (*Dicrocœlium*).
- palliatum* Looss, 1885a, 390, t. h. *Delphinus delphis*.—1885: Dist. 1892: *Cladocœlium*. 1899: *Brachycladium* (type). 1901: *Campula*.
- pallidum* Staff., 1904, 487, t. h. *Fundulus heteroclitus*; Woods Hole.—1904: *Homalometron* (type).
- pallidus* Looss, 1902n, 889, t. h. *Milvus ægyptiacus*; Egypt.—1902: *Heterophyes*.
- palmatum* Rentsch, 1860, 38, t. h. *Seestichling*, *Gasterosteus spinachia*.—1860: Dist.
- palmatum* Leuck., 1830, 612, t. h. *Gadus molva*; Germany.—1830: *Octobothrium*. 1842: *Octobothrium*. 1845: *Octobothrium* (*Cyclocotyle*). 1850: *Diclidophora*. 1859: *Octoplectanum*. 1864: *Pterocotyle* (type). 1879: *Octobothrium*. 1890: *Octobothrium* (*Pterocotyle*). 1895: *Dactylocotyle*.
- paloniæ* J. Poir., 1883, 73, t. h. *Palonia frontalis*; Java.—1883: *Homalogaster*, type.
- palpebrarum* Looss, 1899, 587, t. h. *Corvus cornix*, *Milvus parasiticus*; Egypt.—1899: *Philophthalmus* (type).
- paludinæ impuræ* Baer, see Dies., 1855a, 400.—1855: *Cerc.* 1855: Dist. 1855: *Cercariæum*.
- paludinæ impuræ* Fil., 1854, 279, t. h. *Paludina impura*.—1854: Dist. 1855: *Cercariæum*. [1858: *C. p. i. inermis*.]
- paludinæ impuræ armatum* Fil., 1857, 207, t. h. *Paludina impura*.—1857: Dist. 1858: *Cercariæum*.

- paludinæ impuræ inerme* Fil., 1857, 207.—1857: Dist. 1858: Cercariæum. [1858: Dist. perlatum.]
- paludinæ impuræ* (tentaculorum) Dies., 1855, 399, based on Baer, 1827b, 655, in *Paludina impura*; Regiomontii.—1855: Cercariæum.
- paludinæ viviparæ* Dies., 1855, 399=helicis viviparæ renamed, t. h. *Paludina vivipara*; Vilnæ.—1855: Cercariæum.
- [*pancerii* D. Valle (Dist.) a tunicate.]
- pancerii* Sons., 1891, 303, t. h. *Umbrina cirrhosa*; Italy.—1891: Microcotyle.
- pancreaticum* Janson, 1889a, or Rail., 1890, 143, t. h. sheep; Japan.—1890: Dist. 1897: Dicrocoelium. 1907: Eurytrema, type.
- pancreaticum* Katsurada & Saita, 1906, 501, t. h. cattle; Japan.—1906: Dist. [Eurytrema.]
- pancreatinum* Ward, 1895, 335, for *pancreaticum* (Dist.).
- pandum* Braun, 1901a, 48, t. h. *Thalassochelys caretta*; Naples.—1901: Monost.
- panduriforme* Rail., 1900, 240, t. h. *Pica pica*.—1900: Dicrocoelium.
- pangasii* MacCallum, 1905, 668, t. h. *Pangasius nasutus*; Palembang, Sumatra.—1905: Cladorchis.
- papillatum* Rud., 1814a, 105, t. h. *Anas boschas fera*; Germany.—1814: Dist.
- papillatum* Ben., 1858a, 38.—1858: Trist.
- papillatum* Cobbold, 1882, 240, t. h. *Elephas indicus*; India.—1882: Amphist.
- papilliferum* Mol., 1859, 290, t. h. *Belone acus*; Batavii.—1859: Dist. 1886: D. (Crossodera).
- papilliferum* Braun, 1892a, 586, for *papillatum* Cobbold, 1882 (Amphist.).
- papillorum* Juel, 1889, 14, for *papillosum* (Trist.).
- papillosa* Erc., 1881 or 1882, see Par., 1894, 164, t. h. *Bythinia tentaculata*; Bologna.—1881?: Cerc.
- [*papillosa* Crep., 1837a, 326, name of a group of Dist.]
- papillosa* Lint., 1898, 508, t. h. *Gadus callarias*; Woods Hole.—1898: Nitzschia. 1904: Lintonia (type).
- papillosum* Dies., 1836, 313, t. h. *Xiphias gladius*.—1836: Trist. 1840: Capsala.
- papillosum* Dies., 1850a, 381, D. beroës Will, renamed; t. h. *Beroe rufescens*; Trieste.—1850: Dist. 1860: Crossodera.
- paradoxum* Nord., 1832a, 56, t. h. *Cyprinus brama*.—1832: Diplozoon (type).
- paradoxum* Carus, 1833a, 1835, 86, t. h. *Succinea amphibia*, *Helix putris*; Saxony.—1835: Leucochloridium (type).
- paradoxus* Rud., 1810a, 257, t. h. *Tetrodon mola*; Europe.—1810: Schisturus (type).
- paradoxus* Crep., 1839a, 292, t. h. *Perca lucioperca*; Greifswald.—1839: Ancyrocephalus (type). 1878: Dactylogyrus. [1879: Tetraonchus unguiculatus.]
- parallelum* Looss, 19011, 622, t. h. *Chelone mydas*; Alexandria, from Egyptian coast.—1901: Microscaphidium. 1902: Angiodictyum (type).
- parasitica* Jægers., 1897, 70%, t. h. *Raja clavata*, *R. lævis*; Kattegat.—1897: Micropharynx (type) [ectoparasitic triclad].
- paronæ* Mont., 1893, 43, t. h. *Seriola dumerilii*.—1893: Dist.
- parva* Erc., 1881 or 1882, see Par., 1894, 164, t. h. *Bythinia tentaculata*; Bologna.—1881?: Cerc.
- [*parva* Sluiter, 1900, 6 (Dist.), a tunicate.]
- parva* Stoss., 1904, 10, t. h. *Rana esculenta*; Istria centrale.—1904: Brachymetra (type).
- parvulum* Staff., 1904, 494, t. h. *Semotilus bullaris*; Canada.—1904: Diplost.
- parvulus* Marshall & Gilbert, 1905, 478, t. h. *Micropterus salmoides*; near Madison, Wis.—1905: Cæcicola (type).
- parvus* Braun, 1901, 19, t. h. *Testudo orbicularis*; Vien. Mus.—1901: Telorchis. 1905: T. (Cercorchis).
- parvus* Looss, 1902i, 118, t. h. *Sargus annularis*, *S. rondeletii*; Trieste.—1902: Monorchis.
- pastinacæ* Scott, 1904, 279, t. h. *Trygon pastinaca*; Scotland.—1904: Heterocotyle, type.
- patagiatum* Crep., 1846, 135, t. h. *Ardea stellaris*.—1846: Holost.

- patellare* Sturges, 1897, Sept., 57, t. h. *Triturus* (Molge) *pyrrhogaster* Boie.—1897: Dist. [1899: *Phyllodist.*] 1899: *Spathidium*. 1901: *Phyllodist.*
- pectinata* Huet, 1891a, 162, t. h. *Donax anatinum*.—1891: *Cerc.*
- pectinatum* Lint., 1905, 327, t. h. *Trachinotus carolinus*, *Bairdiella chrysura*; Beaufort, N. C.—1905: Dist.
- pedata* Schrank, (1796), 335, t. h. *Anas querquedula*.—1796: *Festuc.* [1905: *Catatropis verrucosa*.]
- pedatum* Looss, 1899, 592, t. h. *Bagrus bayad*, *B. docmac*; Cairo, Egypt.—1899: *Glossidium* (type).
- pedatum* Dies., 1850a, 309, t. h. *Didelphis myosurus*, *D. cancrivorus*; Brazil.—1850: *Hemist.*
- pedatus* Wagener, 1857, 99, t. h. *Julis*.—1857: *Dactylogyrus*. 1858: *Diplectanum*.
- pedatus* Dies., 1836c, 310, bellones 1794, renamed, t. h. *Esox belone*.—1836: *Heteracanthus*. [1794: *Axine*, type.]
- pedicellatum* Stoss., 1887, 184, t. h. *Chrysophrys aurata*; Triest.—1887: Dist. 1898: *Podocotyle*. [1899: *Creadiinae*.]
- pedocotyle* Leidy, 1890, 282, t. h. *Mola rotunda*; New Jersey.—1890: Dist.
- pegorchis* Stoss., 1901, 94, t. h. *Mæna smarisi*; Triest.—1901: *Creadium*. 1901: *Allocreadium*. 1904: *Lepocreadium*.
- pelagiæ* Koelliker, 1849, 53, t. h. *Pelagia noctiluca*; Naples.—1849: Dist. 1893: *D. (Accacelum)*. 1900: *Accacelum*.
- pelagica* Mont., 1888, 45.—1888: *Cerc.*
- pelagicum* Staff., 1900, 399, at Passamaquoddy Bay, St. Andrews, New Brunswick.—1900: Dist. 1902: *Hemius* (*Apoblema*).
- pelamydis* Tasch., 1878, 176, t. h. *Pelamys sarda*; Naples.—1878: *Trist.*
- pelamydis* Tasch., 1879, 612, t. h. *Pelamys sarda*; Naples.—1879: *Didymozoon*.
- pellucidum* Lint., 1873, 95, t. h. *Gallus domesticus*.—1873: Dist. 1890: *Cephalogonimus*. 1892: *D. (Dicrocelum)*. 1892: *Mesogonimus*. 1899: *Prymnopriion*. 1899: *Prosthogonimus*.
- pellucidum* Schlotthauber, 1860, 129, t. h. *Petromyzon fluviatilis*.—1860: *Holost.*
- periphyllacis esculenti* Wedl, 1849, 197.—1849: Dist.
- pendulum* Looss, 1899b, 688, t. h. *Recurvirostra avocetta*; Egypt.—1899: *Echinost.*
- perca* Gmelin, 1790a, 3057, *perca cernuæ* 1776 renamed; t. h. *Perca cernua*.—1790: *Fasc.* [1809: Dist. *nodulosa*.]
- perca* Mont., 1888a, 7, 30.—1888: *Tetracotyle*.
- perca cernuæ* Mueller, 1776, 224, t. h. *Perca cernua*.—1776: *Fasc.* [1809: *D. nodulosum*.]
- perca fluviatilis* Moul., 1856, 230.—1856: *Tetracotyle*. [1858: *T. typica*.]
- percina* Schrank, 1790, 123, t. h. *Perca asper*, *P. vulgaris*.—1790: *Fasc.* [1809: *D. nodulosum*.]
- peregrinum* Braun, 1900f, 389, t. h. *Rhinolophus ferrum-equinum*.—1900: Dist. 1900: *Mesotretes* (type).
- pericardium* Crep., 1849a, 78, *D. helici* Leidy, renamed.—1849: Dist. [1858: *Cercariaeum vagans*.]
- perlatus* Nord., 1832, 88, t. h. *Cyprinus tinca*.—1832: Dist. 1845: Dist. (*Podocotyle*). 1886: *D. (Echinost.)*. 1899: *Asymphylogora* (type). 1903: *Echinost.*
- perlatus* var. *exspinosus* Hausmann, 1896, 390, t. h. *Barbus fluviatilis*; Switzerland.—1896: Dist.
- permixtus* Braun, 1901, 943, t. h. *Hirundo rustica*; Coll. Vienna.—1901: *Plagiorchis*. 1904: Dist.
- pernicius* Taylor, 1884, 53, see *endemicum*.—1884: Dist. [1907: *Clonorchis endemicum*.]
- perpastum* Braun, 1902b, 86, n. n. for *singularis* of Looss.—1902: *Stomylotrema* (type).
- perpusillus* Looss, 1902, 134, t. h. *Mugil chelo*.—1902: *Dicrogaster* (type).
- persicus* Braun, 1901c, 334, t. h. *Persian wolf*.—1901: *Cotylogonimus*. 1902: *Heterophyes*.
- personatum* Poir., 1886, 11, host unknown; Gulf of Mexico.—1885: Dist.
- perugiai* Setti, 1898, 7 pp., t. h. *Tetrapturus belone*; Spezia.—1898: *Trist.*
- petalosum* Lander, in Looss, 1902m, 454, t. h. *Acipenser rubicundus*.—1902: Dist. [Bunodera]. 1904: *Acrodactyla* (type). See *lintoni* and *cornuta*.

- petasatum* Deslongchamps, 1824ee, 511, t. h. *Hæmatopus ostralegus*; Caen.—1824: Monost.
- peteromyzi fluvialis* Dies., 1850a, 307, t. h. *Peteromyzon fluvialis*.—1850: Diplost. 1892: Tylodelphys.
- petiolatum* Rail., 1900, 241, t. h. *Garrulus glandarius*.—1900: *Dicrocœlium*.
- petromyzonis fluvialis* Dies., 1858e, 316, for *peteromyzi fluv.* (Diplost.).—1858: Tylodelphys.
- petromyzontis* Brown, 1899a, 489, t. h. *Ammocœtes*; Oxford, Eng.—1899: *Tetracotyle*.
- phaneropsolus* Stoss., 1902, 25, t. h. *Totanus* sp.; Yeddo, Japan.—1902: *Hæmatotrephus*.
- phasiani galli* Dies., 1855, 64.—1855: Dist.
- philocholum* Crep., 1845, 330, t. h. *Delphinus phocæna*, in liver.—1845: Dist.
- philodryadum* West, 1896, 322, t. h. *Philodryas schottii*; England.—1896: Dist. 1900: *Opisthogonimus* (type).
- philomelæ* Rud., 1819a, 120, t. h. *Motacilla philomela*; C. E. V.—1819: Dist. [1850: *D. macrostomum*.]
- phœnicopteri* Luehe, 1898g, 625, t. h. Flamingo; Berberei.—1898: *Echinost.*
- phoxini* Linst., 1896, 378, t. h. *Phoxinus lævis*.—1896: Dist.
- phryganæ* Linst., 1877b, 185, t. h. *Phryganea grandis*.—1877: Dist.
- phycidis* Par. & Per., 1889, 743, t. h. *Phycis blennoides*; Genova.—1889: *Dactylocotyle*. 1890: *Octobothrium*. 1890: *Dactycotyle*. 1890: *Octobothrium* (*Dactylocotyle*).
- physæ fontinalis* Dies., 1855a, 400, t. h. *Physa fontinalis*; Regiomontii.—1855: Dist. 1855: *Cercariæum*.
- physcon* Luehe, 1901n, 478, t. h. *Lophius piscatorius*; Triest.—1901: *Lecithochirium*.
- physophoræ* Kœlliker, 1849c, 53, t. h. *Physophora tetrasticha*; Naples.—1849: Dist. [1850: *D. geniculatum*.]
- pianæ* Galli Valerio, 1898d, 145, t. h. *Anas boschas*; Busto Arsizio.—1898: *Opisthorchis*. 1898: *Opisthorchis*.
- picta* Rud., 1802, 64, *F. vespertilionis* renamed; t. h. *Fledermaus* [*Vespertilio murinus*]; Greifswald.—1802: Fasc. [1809: Dist. lima.]
- pictum* Crep., 1837, 313, t. h. *Ciconia alba*.—1837: Dist. 1901: *Stomylotrema*.
- pigmentata* Sons., 1892, Oct. 7, 142, t. h. *Physa alexandrina*, *P. micropleura*; Cairo, Egypt.—1892: *Cerc.* [Amphist.]. [1902: *A. conicum*.]
- pilchardei* Mont., 1888a, 66, misprint for *pilchardi* (*Octocotyle*).
- pilchardi* Ben. & Hesse, 1863, 1864, 99, t. h. *Clupea pilchardus*.—1863: *Octocotyle*. 1879: *Octobothrium*. 1889: *Octoplectanum*.
- pileata* Rud., 1802, 65, t. h. *Sterna hirundo*; Greifswald.—1802: *Festuc.* 1803: Monost. 1809: *M.* (Monost.). 1819: Amphist. 1828: Holost. 1845: Holost.
- pileatum* Brand., 1888a, 59, t. h. *Sterna caspica*, *Larus glaucus*; Wien. Mus.—1888: Hemist.
- pileatum* Rud. of Bremser, 1824, pl. 8, figs. 28–29.—1824: Amphist. [1850: Hemist. commutatum.]
- pingue* Mehlis in Crep., 1846, 138, t. h. *Colymbus cristatus*.—1846: Monost. 1904: *Renicola* (type).
- pinguicola* Treutler, 1793, 6, t. h. *Homo*.—1793: *Hexathyridium* (type). 1800: Polyst. 1809: Polyst. (Hexast.). 1828: *Hexathyridium*. 1833: *Hexacotyle*. [Hexast.] [Linguatula.]
- pinguiculum* Joy, 1835a, 505, for *pinguicola* (Polyst.).
- pini* Ben. & Hesse, 1863, 1864, 72, t. h. *Trigla pini*.—1863: *Placunella* (type). 1878: *Trist.* 1903: *Trochopus*.
- pinnarum* Wagener, 1857, 26, t. h. *Gasterosteus*.—1857: Dist.
- pinnatum* Will.-Suhm, (1873), 341.—1873: Dist.
- piriforme* Crep., 1846, 142, in *Anas fusca*, *A. glacialis*; see *pyriforme*.—1846: Dist.
- piriforme* Sons., 1895, 184, for *pyriforme* (Amphist.).
- piscicola* Odhn., 1902, 152, t. h. *Gymnarchus niloticus*.—1902: *Opisthorchis*.
- pittacium* Braun, 1901, 947, t. h. *Strepsilas interpres*.—1901: Dist.
- planci* Stoss., 1899, 5, t. h. *Ranzania truncata*; Triest.—1899: *Podocotyle*. 1902: *Orophocotyle* (type).

- planicollæ* Rud., 1819a, 682, t. h. *Pelecanus sula*; Brazil.—1819: Dist. (Echinost.). [1850: Monost. echinostomum.] [1901] 1902: Anoictost.
- planorbis carinati* Fil., 1857c, 13, t. h. *Planorbis carinatus*; Turin.—1857: Dist. 1858: Cerc. (Acanthocephala). 1858: Cercariæum.
- planorbis cornei* Dies., 1850a, 298, based on Henle, 1835, 597, t. h. *Planorbis corneus*.—1850: Cerc. 1855: Cercariæum.
- planorbis cornei* Linst., 1877, 187.—1877: Dist.
- planorbis cornei* (*hepatis*) Dies., 1858d, 281, t. h. *Planorbis corneus*.—1858: Cercariæum.
- planorbis cornei* (*ovariorum*) Dies., 1858d, 281, for *planorbis cornei* 1850.—1858: Cercariæum.
- platellæ* Bosc, 1802a, v. 1, 273, see *platessæ* (Fasc.).
- platessæ* Mueller, 1784, 114, t. h. *Pleuronectes platessa*, int.—1784: Fasc. 1803: Dist. [1809: D. areolatum.]
- platycephalum* Crep., 1825a, 39, t. h. *Colymbus rufogularis*; Greifswald.—1825: Amphist. 1845: Holost.
- platygaster* Leuck., 1842a, 30, t. h. *Gadus merlangus*.—1842: Octobothrium. [1845: O. merlangi.]
- platyura* Crep., 1838b, 83, includes *Axine belones*, *Heteracanthus pedatus*, *H. sagittatus*.—1838: *Axine*.
- platyura* Leidy, 1891a, 416, free in pool with *Lymnæus*; Fort Bridger, Wyo.—1891: Cerc.
- platyurum* Mueh., 1896, 267, t. h. *Harelda glacialis*; East Prussia.—1896: Dist. 1899: Psilost. (type).
- playfairii* Forbes & Goodsir (1839).—1839: Tetrast.
- plenus* Staff., 1904, 484, t. h. *Anarrhichas lupus*; Canada.—1904: Derogenes.
- pleroticum* Braun, 1899e, 631, host?; Brazil.—1899: Dist. 1901: Telorchis.
- plesiostomum* Linst., 1883, 305, t. h. *Perdix græca*; Turkestan.—1883: Dist. 1892: D. (*Brachylaimus*). 1899: Dicrocœlium. [1899: *Lyperosomum*.]
- pleurolophocerca* Sons., 1892, Oct. 7, 138, t. h. *Melania tuberculata*, *Cleopatra bulimoides*; Cairo, Egypt.—1892: Cerc.
- pleuronectes* Mueller, 1773, 70, in aquis [etc.].—1773: Cerc. 1827: Phacus.
- pleuronectis maximi* Dies., 1855, 64, based on Bellingham, 1844, 428; renamed D. microcotyle. 1855: Dist.
- plicatum* Crep., 1829a, 878, t. h. *Balæna rostrata*; Rügen.—1827: Monost. 1891: Ogmogaster (type).
- [*plumbeum* D. Valle, (Dist.), a tunicate.]
- podomorphum* Nitzsch, 1819, 399, t. h. *Falco haliaëtus*; Halle.—1819: Holost. 1850: Hemist.
- podura* Mueller, 1773, 66, in paludosis *Lemna coopertis*.—1773: Cerc. 1815: Furcocerca. 1827: Enchelys. 1828: Ichthyidium, type.
- poirieri* Stoss., 1895, 227 (D. gelatinosum Poir., 1885).—1895: Dist. 1895: D. (Dicrocœlium). 1899: Telorchis. 1902: Telorchis. 1905: T. (*Cercorchis*).
- poirieri* Giard & Billet, 1892, 615, t. h. cattle; Tonkin.—1892: Homalogaster.
- pollachi* Mont., 1888, 66, for *pollachii* (*Dactycotyle*).
- pollachii* Ben. & Hesse, 1863, 1864, 90, t. h. *Merlangus pollachius*.—1863: Udonella.
- pollachii* Ben. & Hesse, 1863, 1864, 110, t. h. *Merlangus pollachius*.—1863: Dactycotyle (type). 1879: Octobothrium. 1883: Dactylocotyle. 1890: O. (*Dactylocotyle*).
- polonica* Kowal., 1895g, 41, t. h. *Anas boschas fera*, *A. crecca* L.; Dublany.—1895: Bilharzia. 1898: Schistosoma. 1899: Bilharziella (type).
- polonii* Mol., 1859, 291, t. h. *Caranx trachurus*; Batavii.—1859: Dist. 1886: D. (Echinost.).
- polychroa* Tasch., 1879, 36.—1879: Planaria.
- polyclinorum* Pag., 1862, 306, t. h. *Polyclinum*; Golf von Spezia.—1862: Dist.

- polymastos* Leuck., 1880, or *Lejtenyi*, 1880, t. h. *Equus caballus*; Egypt.—1880: *Gastrodiscus*. [1896: *G. ægyptiacus*.]
- polymorpha* Rud., 1802b, 70, *F. anguillæ* Gmelin renamed; t. h. Aal.—1802: Fasc. 1809: Dist.
- polymorphum* Fil., 1837a, 337, t. h. *Planorbis submarginata*; see also *brachyura* Diesing, 1850.—1837: Dist.
- polymorphus* Baer, 1827b, 570, t. h. *Unio*, *Anodonta*.—1827: *Bucephalus* (type). 1855: *Bucephalus* (*Eubucephalus*, type). 1856: Cerc. —: Cerc. (*Bucephalus*).
- polyoon* Linst., 1887, 103, t. h. *Gallinula chloropus*.—1887: Dist.
- polyorchis* Stoss., 1889, 24, t. h. *Corvina nigra*; Triest.—1889: Dist. 1894: D. (*Polyorchis*, type). 1896: *Polyorchis*. 1896: *Pleorchis* (type).
- pomatix* Vaney & Conté, 1899, 194, t. h. *Helix pomatix*; Lyon.—1899: Cerc.
- pomatomi* Goto, 1899a, 278, t. h. *Pomatomus saltatrix*; Newport, R. I.—1899: *Microcotyle*.
- pontalici* Stoss., 1898, 178, for *pontalliei* (Dist.)
- pontalliei* Cobbold, 1860a, 10, t. h. *Ardea minuta*; *D. cladocalium* Dies., renamed.—1860: Dist.
- porcorum* Gmelin, 1790a, 3054.—1790: Fasc. *hepatica*.
- poricola* Schlotthauwer, 1860, 129, t. h. *Anas boschas*.—1860: Ast. (type).
- porrectum* Braun, 1899b, 714, t. h. *Saurophaga saurophaga*; New Guinea.—1899: Dist. [1899: *Lyperosomum*.]
- posticum* Staff., 1905, Apr. 11, 692, t. h. *Vespertilio subtilis* Say; Canada; *chilost.* Mehlis of Staff., 1903, 827, renamed.—1905: *Lecithodendrium*.
- poturzyensis* Kowal., 1898g, 72, t. h. *Anas boschas* dom.—1898: *Opisthorchis*. 1898: *O. simulans* var. 1898: *Campula*. 1902: *Metorchis*.
- præmorsum* Nord., 1832, 55, t. h. *Cyprinus brama*; Europe.—1832: *Monost.* 1892: *Monostomulum*.
- præteritus* Looss, 1901e, 633, t. h. *Labrax lupus*; Triest.—1901: *Acanthochasmus*.
- prenanti* St.-Remy, 1890, 41, t. h. *Raja oxyrhynchus*; Roscoff.—1890: *Onchocotyle*. 1889: *Rajonchocotyle*.
- pretiosus* Ariola, 1902, 107, t. h. *Thynnus vulgaris*.—1902: *Didymozoon*.
- prima* Ssinitzin 1905, 147; 1906, 687, t. h. *Aplexa hypnorum*, *Planorbis vortex* compressa, *Corethra*, *Ilybius*; Warschau.—1905: Cerc.
- primus* Staff., 1905, 691, t. h. *Eutenia sirtalis*; Canada.—1905: *Lechiorchis* (type).
- prismaticum* Zed., 1800a, xvi, 150, t. h. *Corvus frugilegus*; Europe.—1800: *Monost.* 1809: M. (*Monost.*). [1892: Dist.]
- pristiophori* Johnston, 1902, 326, t. h. *Pristiophorus cirratus* Lath.—1902: Dist.
- pristis* Deslongchamps, in Lamouroux, 1824, 563; 1821, 281, t. h. *Merlangus communis*; Normandy.—1824: Dist. 1845: D. (*Echinost.*). 1860: *Echinost.* 1899: *Anoikst.* 1899: *Stephanost.* 1901: *Stephanochasmus*.
- problematicum* Stoss., 1902, 14, includes Looss, 1899b, 660, t. h. *Totanus calidris*, *T. glottis*.—[1899: *Cyclocœlum*.] 1902: *Cyclocœlum*.
- proboscideum* Rud., 1814a, 106, *Echinorhynchus crotali*, 1808, renamed; America.—1814: *Polyst.* 1814: *Polyst.* (*Pentast.*). 1819: *Pentast.* [*Porocephalus*, type.]
- producta* Linst., 1903, 354, t. h. *Solea vulgaris*.—1903: *Epibdella*.
- productus* Staff., 1904, 485, t. h. *Hemitripterus americanus*; Canada.—1904: *Sinistroporus*.
- productus* Odhn., 1902, 24, t. h. *Nilkrokodil*; Sudan.—1902: *Acanthochasmus*.
- propinquum* Braun, 1901, 942, t. h. *Dendrocalaptes scandens*; Brazil.—1901: *Glaphyrost.*
- proteus* Brand., 1891, 19, t. h. *Chelonia viridis*.—1891: *Monost.* 1892: *Notocotyle*. 1899: *Baris* (type). 1900: *Deuterobaris* (type).
- proxima* Lespès, 1857, 116, t. h. *Littorina littorea*.—1857: Cerc. 1858: C. (*Gymnocephala*).
- prussica* Mueh., 1896, 590, t. h. *Anas glacialis*.—1896: *Cyathocotyle* (type).
- pseudamphistomum* Crep., 1846, 146, t. h. *Chelonia mydas*.—1846: *Monost.*

- pseudoechinatum* Olss., 1876, 21, t. h. *Larus marinus*; Scandinavia.—1876: Dist. 1892: Echinost.
- pseudofelineus* Ward, 1901, 180, "Dist. felineum" of Ward, 1895, not Rivolta, 1884, renamed, t. h. *Felis catus dom.*; Lincoln, Nebr.—1901: Opisthorchis.
- pseudostoma* Will.-Suhm, 1870, 11, t. h. *Alligator lucius*.—1870: Dist. 1886: Diplost. 1895: D. (*Brachylaemus*).
- prudens* Lint., 1900a, 269, t. h. *Paralichthys dentatus*; Woods Holl.—1900: Dist.
- pugio* Linst., 1887, 105, t. h. *Limnæa ovata*.—1887: Cerc.
- pugnax* LaValette, 1855, 19, t. h. *Paludina vivipara*.—1855: Cerc. [1855: C. microcotyla.]
- pulchellum* Rud., 1819a, 94, t. h. *Labrus cynædus*; Naples.—1819: Dist. 1902: Helicometra (type). 1903: D. (*Dicrocoelium*).
- pulcherrima* Weyenbergh, 1876, 167, t. h. *Hypostomus plecostomus*; Argentina.—1876: Amphist. 1878: Dist.
- pulicis* Linst., 1892, 333, t. h. *Gammarus pulex*.—1892: Dist.
- pulmonale* Linst., 1904, 678, t. h. *Halicore australis*; Australia.—1904: Opisthotrema.
- pulmonale* Bælz, 1883, April, 236, t. h. *Homo* [see *westernmanii* Kerbert, 1878].—1883: Dist. 1889: Dist. 1890: *Mesogonimus*. 1899: *Paragonimus*.
- pulmonalis colubri natrix* Viborg, 1795, 243.—1795: Dist. [D. *naja*].
- pulmonar* La Clínica de Málaga, 1883, 308, for *pulmonale*, see *westernmanii*.—1883: Dist.
- pulmonis* Kiyona, Suga, and Yamagata, 1881, teste Ijima, 1889b, 148, see *westernmanii*.—1881: Dist.
- pulmonum* Bælz, 1880, Sept., 721, t. h. *Homo*, see *westernmanii*.—1880: Gregarina. 1884: Dist. [1899: *Paragonimus*.]
- pulverulenta* Braun, 1901g, 946, t. h. *Anas querquedula*; Dongola.—1901: Bilharziella.
- pulvinatum* Braun, 1899, 630, t. h. *Flusschildkröte*; Brazil.—1899: Dist.
- pumilio* Looss, 1896, 154, t. h. *Pelecanus onocrotalus*; Egypt.—1896: Monost. 1899: Haplorchis (type).
- punctata* Mueller, 1774, 57, in *pratis inundatis primovere*.—1774: Fasc. 1787: Planaria.
- punctatum* Dies., 1850a, 329, misprint for *punctum* (Dist.).
- punctum* Zed., 1800a, 164, t. h. *Cyprinus barbus*; Europe.—1800: Dist. 1828: Fasc.
- punctum* Erc., 1881 or 1882, see Par., 1894, 164, t. h. *Bythinia tentaculata*; Bologna.—1881: Cerc.
- pungens* Linst., 1894b, 333, t. h. *Podiceps minor*; Seeburger See.—1894: Dist. (Echinost.). 1899: Echinost.
- pusilla* Braun, D. M., 1790a, 62, t. h. *Erinaceus europæus*; Europe.—1790: Planaria. 1790: Fasc. 1803: Dist. 1892: Agamodist.
- pusilla* Looss, 1896b, 229, t. h. *Vivipara unicolor* Olivier; Damanhour.—1896: Cerc.
- pusilla* Staff., 1904, 485, t. h. *Anarrhichas lupus*; Canada.—1904: Neophasis (type).
- pusillum* Staff., 1904, 494, t. h. *Stizostedion vitreum*; Canada.—1904: Gasterost.
- pusio* Eichwald. — — —: Planaria.
- putorii* Linst., 1877, 191, t. h. *Fœtorius putorius*.—1877: Diplost.
- putorii* Mol., 1858, 131, t. h. *Mustela putorius*; Patavia.—1858: Dist. 1892: Agamodist.
- putorii* Gmelin, 1790a, 3053, t. h. *Mustela putorius*.—1790: Fasc. 1790: Planaria. 1893: Dist. [1850: D. *trigonocephalum*.]
- putrescens* Looss, 1902, 135, t. h. *Mugil auratus*.—1902: *Lecithobotrys* (type).
- pynoporus* Stoss., 1901, 92, t. h. *Sargus salviani*; Triest.—1901: Holorchis (type).
- pygmæa* var. *simile* Jægers., 1900c, 737, t. h.—1900: *Levinsenia*. [1902: *Spelotrema*.] [1902: Dist.]
- pygmæum* Levin., 1881a, 73, t. h. *Somateria mollissima*; Egedesminde.—1881: Dist. 1892: D. (*Brachycoelium*). 1899: *Levinsenia*. 1901: *Spelotrema* (type, Dec. 31). 1903: *Levinseniella*.
- pyramidum* Looss, 1896b, 76, t. h. *Rhinolopus hippocrepis*; Ghizeh.—1896: Dist. 1899: *Lecithodendrium*.
- pyriforme* Dies., 1838a, 189, 1839a, 236, t. h. *Tapirus americanus*; Matogrosso or Cachoeira do Bananeira, Brazil.—1839: Amphist. 1901: *Cladorchis*.

- pyriforme* Crep., 1837a, 316, t. h. Eisente, Anas glacialis.—1837: Dist.
- pyriforme* Lint., 1900, 269, t. h. Palinurichthys perciformis; Woods Holl.—1900: Dist.
- pyxidatum* Bremser, in Rud., 1819a, 678, t. h. Crocodilus sclerops; Brazil.—1819: Dist.
- pyrula* Bory de St. Vincent, 1823a, 355, in infusion de chènevis.—1823: Cerc.
- quadrangulata* Bosc., 1802a, 257.—1802: Planaria.
- quadrangularis* Pallas, 1774, 20 in fossis; Hagæ Comitum.—1774: Fasc.
- quadricornis* Haswell, 1887a, 284, t. h. Astacopsis franklinii; Tasmania.—1887: Temnocephala.
- quietum* Staff., 1900, 403, t. h. "frog;" apparently Canada.—1900: Dist. 1905: Glypthelmins (type).
- rachixæum* Crep., 1839, 289, for rhachixæum (Diplost.).
- rachidis* Par., 1896, 2, for rhachidis.—1896: Diplost. (Tylodelphis).
- rachieum* Fraip., 1880c, 419, for rhachixæum (Diplost.).
- rachineum* Mueller, (1842).—Diplost.
- rachion* Cobbold, 1858b, 158, t. h. Morrhua æglefinus.—1858: Dist. 1886: D. (Echinost.). 1904: Lepidapedon (type). 1905: Lepodora (type).
- rachixa* Odhn., 1905, 328, for rachion (Dist.).—1905: Lepodora (type).
- radiata* Mueller, 1774, 66, in aquis sylvestribus, rara.—1774: Fasc. 1776: Planaria.
- rachidis* Hanover, 1864a, 3, see rhachidis 1850 (Tylodelphys).
- radiatum* Duj., 1845a, 427 t. h. Carbo cormoranus or Pelecanus carbo.—1845: Dist. (Echinost.).
- radula* Duj., 1845a, 433, t. h. Lymnæus palustris; Rennes.—1845: Dist. (Echinost.).
- ragazzi* Linst., 1903t, 354, for ragazzii (Dist.).
- ragazzii* Setti, 1897, 8, t. h. Squalus sp.; Eritrea.—1897: Dist. (Polyorchis). 1899: Syncœlium (type).
- rajæ* Rud., 1809a, 435, for rajæ intestinale.—1809: Dist.
- rajæ intestinale* Viborg, 1795, 242.—1795: Dist.
- ralli* Rud., 1819a, 120, t. h. Rallus aquaticus; M. C. V.—1819: Dist. [1850: D. holostomum.]
- rambianum* Looss, 1896b, 36, t. h. caméléon; Ramleh.—1896: Dist. 1899: Lepoderma (type). 1899: Plagiorchis.
- ramosum* Sons., 1895, 123, t. h. Babulcus ibis; Nile Delta.—1895: Echinost.
- ranæ* Gmelin, 1790a, 3055, t. h. Rana, int.; Europe.—1790: Fasc. [1809: Amphist. subclavatum.]
- ranæ* Frølich, 1791, 69, t. h. Rana temporaria; Europe.—1791: Fasc. [1809: Amphist. subclavatum.] [1850: Dist. clavigerum.] [1894: D. endolobum.]
- ranæ* Zed., 1800a, xviii, 203, t. h. Rana temporaria; includes Planaria uncinulata 1790, from Rana esculenta; Europe.—1800: Polyst. (type). [1809: P. integerimurum.]
- ranæ* Valentin, 1843, 90 teste Dies., 1850a, 472.—Trematodum.
- ranæ esculentæ* Dies., 1850a, 388, based on Valentin, 1841, 54.—1850: Dist.
- rarum* Ben., 1858a, 1861a, 178, t. h. Cyprinus dobula.—1858: Dist.
- rarus* Braun, 1901, 17, t. h. Fulica atra, Coll. Berlin; Anas boschas.—1901: Prosthogonimus.
- rastellus* Qlss., 1876, 16, t. h. Rana temporaria.—1876: Dist. [1887: D. endolobum.]
- rathonisi* Simon, 1896, 182, 192, misprint for rathouisi (Dist.).
- rathonisii* Huber, 1894, 2, misprint for rathouisi (Dist.).
- rathouisi* Poir., 1887, 203, t. h. Homo; Asia.—1887: Dist. 1892: D. (Dicrocœlium). 1903: Fasciolopsis.
- rathouisi* Braun, 1892a, 568, for rathouisi (Dist.).
- raynerianum* Nardo, 1827, 68, t. h. Luvarus imperialis; Venice.—1827: Dist. 1886: D. (Apoblema). 1901: Accacœlium.
- receptaculum* Cobbold, 1860a, 29, t. h. Labrax lupus.—1860: Dist.
- recurvatum* Linst., 1873, 105, t. h. Anas marila.—1873: Dist. 1892: Echinost.
- recurvum* Duj., 1845a, 410, t. h. Mus sylvaticus; Rennes.—1845: Dist. (Brachylaimus).
- redactum* Nicoll, 1906, 515, t. h. Gasterosteus aculeatus; Scotland.—1906: Psilost. [1907: Podocotyle atomon.]

- reductum* Looss, 1901, 562, t. h. *Thalassochelys corticata*.—1901: *Enodiotrema*.
- refertum* Mueh., 1898, 18, t. h. *Cypselus apus*; East Prussia.—1898: *Dist.* 1899: *Dicrocoelium*.
- reficiens* Braun, 1901, 945, t. h. *Falco nitidus*.—1901: *Dicrocoelium*.
- [*reflexum*: *Schistosoma*, a term in teratology.]
- reflexum* Crep., 1825a, 54, t. h. *Cyclopterus lumpus*.—1825: *Dist.* 1886: *D.* (*Dicrocoelium*). 1905: *Podocotyle*.
- reinhardi* Linst., 1903, 208, t. h. *Astacus leptodactylus*.—1903: *Dist.*
- renale* Chiaje, 1833, 13, t. h. *Homo*; Naples.—1833: *Tetrast.* (type).
- renale* Fil., 1855b, 19, t. h. *Helix adpersa*; near Turin.—1855: *Dist.* 1856: *Cerc.* 1858: *C.* (*Gymnocephala*).
- renicapite* Leidy, 1856, 43, t. h. *Sphargis coriacea*; America.—1856: *Monost.*
- reniferum* Looss, 1898, 461, *unicum* Looss, not Molin, renamed.—1898: *Dist.* 1899: *Astia* (type). 1904: *Astiotrema* (type).
- reniforme* Luehe, 1899, 531, for *reniferum* Looss (*Dist.*).
- reniformis* Ariola, 1902, 101, t. h. *Thynnus vulgaris*; Naples.—1902: *Didymocystis* (type).
- repandum* Rud., 1819a, 681, t. h. *Rana* sp.; Brazil.—1819: *Dist.*
- resectus* Looss, 1902m, 537, t. h. *Chelone mydas*; Egyptian coast.—1902: *Cricocephalus*.
- reticulare* Ben., 1859, 84, t. h. *Chelonia midas*.—1859: *Monost.* 1899: *Microscapha* (type). 1901: *Microscaphidium* (type).
- reticulata* Goto, 1894a, 189, t. h. *Stromateus argenteus*; Japan.—1894: *Microcotyle*.
- reticulatum* Looss, 1885, 427, t. h. *Wels*; Costa Rica.—1885: *Dist.* 1899: *Clinost.* [1888: *Mesogonimus* (type).]
- reticulatum* Wright, 1879, 58, t. h. *Ceryle alcyon*.—1879: *Dist.* 1899: *Fasc.* 1892: *D.* (*Brachylaimus*).
- reticulatum* Poir., 1886, 39, in *Axinurus dugesii*.—1886: *Dist.* [1899: *Clinost. marginatum*.]
- retikulatum* Looss, 1885b, 59, for *reticulatum* (*Dist.*).
- retroconstrictum* Srámek, 1901, 95, 108, fig. 62, t. h. *Abramis brama*.—1902: *Dist.*
- retroflexum* Mol., 1859, 290, t. h. *Belone acus*; Batavii.—1859: *Dist.* 1898: *Podocotyle*. 1886: *D.* (*Podocotyle*).
- retusum* Duj., 1845a, 405, t. h. *Rana temporaria*; Rennes.—1845: *Dist.* (*Brachycoelium*). 1886: *D.* (*Dicrocoelium*).
- revoluta* Frœlich, 1802, 58, t. h. *Anas boschas*; Europe.—1802: *Fasc.* 1899: *Echinost.*
- rhachixum* Henle, 1833a, 19, t. h. *Rana*.—1833: *Diplost.* 1892: *Tylodelphys*.
- rhachidis* Dies., 1850a, 305, *rhachixum* 1833, renamed.—1850: *Tylodelphys*. 1896: *Diplost.* (*Tylodelphis*).
- rhatonisii* Simon, 1897, 223, misprint for *rathouisii* (*Dist.*).
- rhizophisæ* Mont., 1888a, 199, for *rhizophysæ* (*Dist.*).
- rhizophysæ* Studer, 1878, 12, t. h. *Rhizophysa conifera*.—1878: *Dist.*
- [*rhodopyge* Sluiter, 1898 (*Dist.*), a tunicate.]
- rhombi* Ben., 1870, 72, t. h. *Rhombus maximus*.—1870: *Dist.*
- rhombi* Ben. & Hesse, 1863, 1864, 73, t. h. *Rhombus maximus*.—1863: *Placunella*. 1878: *Trist.* 1903: *Trachopus*.
- rhombi lævis* Dies., 1858e, 328, t. h. *Rhombus lævis*; Europe.—1855: *Monost.* 1892: *Monostomulum*.
- ropaloides* Crep., 1839, 294, for *ropaloides* 1836, q. v.—1839: *Amphist.*
- ricchiardii* see *richiardi* (*Dist.*).—1902: *Probolitrema* (type).
- richardi* Brand., 1891b, 267, for *richiardi* (*Dist.*).
- richiardi* Mont., 1891, 500, for *richiardi*.—1891: *Dist.* (*Polyorchis*).
- richiardi* Lopez, 1888a, 137, t. h. *Acanthias vulgaris*.—1888: *Dist.* 1900: *Anaporphutum*. 1902: *Probolitrema* (type).
- richiardi* Sons., 1890, 172, t. h. *Pagrus orphus*.—1890: *Anoplodiscus* (type).
- rigens* Linst., 1878a, 282, for *ligula* 1871 (*Dist.*).
- rigonocerca* Braun, 1892a, 809, ? for *trigonocerca*.—1892: *Cerc.*
- ringens* Rud., 1819a, 101, t. h. *Picus tridactylus*; Vien. Mus.—1819: *Dist.* [1850: *D. macrostomum*.]

- ringens* Linst., 1878a, 360, for ligula 1871 (Dist.), t. h. *Scymnodon ringens*.
ringens Lint., 1905, 327, t. h. *Micropogon undulatus*, *Trachinotus carolinus*; Beaufort, N. C.—1905: *Aspidogaster*.
ringeri Cobbold, 1880, Aug., 139, t. h. *Homo*.—1880: Dist. 1890: *Mesogonimus*. 1897: *Distomi*. [See *westermanii*.]
ringerii for *ringeri* (Dist.).
ringers Rev. Sci., 1890, v. 46, 189, 190, for *ringeri* (Dist.).
robustum Lorenz, 1881, 583, t. h. *Elephas africanus*.—1881: Dist. 1892: D. (*Brachylaimus*).
robustum Stoss., 1902, 18, t. h. *Fuligula cristata*.—1902: *Cyclocoelum*.
robustus Looss, 19011, 621, t. h. *Chelone mydas*; Egyptian coast.—1901: *Charaxicephalus* (type).
rochebruni Poir., 1886, 36, t. h. *Delphinus delphis*.—1886: Dist. 1892: *Cladocoelum*. 1899: *Brachycladium*.
rochebrunni Braun, 1892a, 673, for *rochebruni* (Dist.).
rombi-lævis Mont., 1892, 717, for *rhombi-lævis* (Monost.).
ropaloides Leblond, 1836e, 290, t. h. *Muraena conger*; coast of Normandy.—1836: Amphist. [1850: *Tetrabothriorhynchus migratorius*.]
rosaceum Nord., 1832, 82, t. h. *Gadus lota*.—1832: Dist. 1856: D. [tereticolle].
rosarum Cobbold, 1860a, 21, misprint for *rosaceum* (Dist.).
rosea Mueller, 1774, 58, in *sinu Drøbachiensi*.—1774: Fasc. 1787: Plan. 1892: *Amphiporus*.
rosea Ben., 1870, 1871a, 90, t. h. *Petromyzon omalii*; Belgium.—1870: Dist.
rossittensis Mueh., 1898, 16, t. h. *Turdus pilaris*; East Prussia.—1898: *Urogonimus* 1899: *Urotocus* (type).
[*rostellatum* Dies., 1850a, 603.—1850: *Octobothrium*, cestode.]
rostrata Mueller, 1774, 65, in *paludosis*, primo vere annorum.—1774: Fasc. 1776: Plan.
rostrata Erc., 1881, see Par., 1894, 190, ? t. h. *Bythinia tentaculata*; Bologna.—1881: Cerc.
rostroaculeata Erc., 1881, see Par., 1894, 164, ? t. h. *Bythinia tentaculata*; Bologna.—1881: Cerc. [1894: *C. nodulosa*.]
rotundatum Linst., 1877, 187, t. h. *Lanius collurio*.—1877: Holost.
rotundum Goto, 1894a, 245, t. h. *Xiphias gladius*; Japan.—1894: Trist.
rubellum Olss., 1868, 40, t. h. *Labrus maculatus*.—1868: Dist. 1886: D. (*Brachycoelum*). 1899: *Lecithodendrium*. 1902: *Zoogonus*.
rubens Duj., 1845a, 411, t. h. *Sorex fodiens*, *S. tetragonurus*; Rennes.—1845: Dist. (*Brachylaimus*).
ruber Luehe, 1900, 507, t. h. *Trigla lineata*.—1900: *Derogenes* (type).
ruber see also *rubrum* (*Cricocephalus*).
rubra Mueller, 1774, 59, *Fucorum frequens*.—1774: Fasc. 1776: Plan.
rubrum Kuhl & van Hasselt, 1822a, 1824a, 311, t. h. *Chelonia midas*; Iles des Coco-tiers.—1824: Monost. 1902: *Cricocephalus*.
[*rubrum* Savigny (Dist.), a tunicate.]
rude Dies., 1850a, 360, t. h. *Lutra brasiliensis*; Brazil.—1850: Dist. [1899: *Paragonimus*.] 1900: *Paragonimus*.
rudectum Braun, 1901, 946, t. h. *Ibis caerulescens*; Brazil.—1901: *Lyperosomum*.
rudolphianum Dies., 1850a, 429, t. h. *Orthagoriscus mola*; new name for *T. coccineum* of Rud., *Phylline coccinea* Schweigger, *Capsala sanguinea* Blainville, *T. mola* Bl.—1850: Trist. 1865: *Capsala*.
rufoviride Rud., 1819a, 110, t. h. *Muraena conger*; Naples.—1819: Dist. 1845: D. (*Apoblema*). 1899: *Hemiurus*. 1899: *Apoblema*. 1901: *Lecithochirium* (type).
rugosus Odhn., 1902, 32, t. h. *Coluber pullatus*.—1902: *Cotyloretus* (type).
rutilans Bosc, 1802a, 258.—1802: Plan.
saccata Goetze, 1782a, 221, based on Sack-Egel of Merrem, 1781, 169, pl. 1, figs. 3-7.—1781: Fasc. [1803: *Cysticercus tæniæformis*.]
sacidiornicola Stoss., 1902, 34, for *sarcidiornicola* (Monost.).

- saginaturn* Ratz., 1898, 73, t. h. *Ardea alba*; Europe.—1898: Dist. 1903: *Pegosomum* (type).
- sagitata* Lespès, 1857, 114, t. h. *Nassa reticulata*; Arcachon.—1857: Cerc. [C. (Gymnocephala).]
- sagitta* Looss, 1899b, 668, t. h. *Chelonia mydas*; Egypt.—1899: Microscapha. 1901: Microscaphidium. 1902: Octangium (type).
- sagitta* Pag., 1862, 297, for *sagitata* (Cerc.).
- sagittalis* Vaney & Conté, 1899, 196, C. *sagittifera* Sieb., 1854, renamed, t. h. *Helix pomatia*.—1899: Cerc.
- sagittata* Dies., 1858d, 249, for *sagitata* 1857.—1858: Cerc. (Gymnocephala).
- sagittatum* Leuck., 1842, 49, t. h. *Salmo fario*.—1842: Octobothrium. 1850: Discocotyle (type). 1858: Placoplectanum (type).
- sagittatus* Dies., 1836, 313, t. h. *Esox belone*; Europe.—1836: Heteracanthus. [1850: *Axine bellones*.]
- sagittifera* Sieb., 1854, 18, t. h. *Helix pomatia*.—1854: Cerc. [1858: *Cercariæum heliciæ pomatiæ*.]
- salamandræ* Frœlich, 1789, 119, t. h. *Salamandra atra*.—1789: Fasc. 1803: Dist. [1809: D. crassicolle.]
- salamandræ perspicillatæ* Sons., 1896, 1: 1896, 116.—1896: Dist.
- salebrosum* Braun, 1901g, 946, t. h. *Cypselus melba*; Coll. Vien.—1901: *Lyperosomum*.
- salmonis* Mueller, 1780 of Gœze, 1782a, 173.—Fasc. [1901: ? *Hemiusurus crenatus* (Rud.) Luehe.]
- salmonis lavareti* Linst., 1878a, 266.—Trematodum.
- salpæ* Par. & Perugia, 1890, 207, t. h. *Box salpa*; Genova.—1890: Microcotyle.
- sanguicola* delle Chiaje, 1833, 14, venarum renamed, t. h. *Homo*.—1833: Polyst.
- sanguinea* Blainv., see Dies., 1850a, 429.—Capsala. [1850: *Trist. rudolphianum*.]
- sanguineum* delle Chiaje, 1837b, 245, t. h. *Homo*.—1837: Polyst.
- sanguineum* Sons., 1894, 111, t. h. *Camæleo vulgaris*; Gabes in Tunisia.—1894: Dist. 1895: D. (Brachylaimus). 1899: *Anchitrema* (type).
- sarcidiornicola* Mégnin, 1890c, 87, t. h. *Sarcidiornis melanota*; Madagascar.—1890: Monost. 1902: *Typhlocœlum*.
- sargi* and *sargii* Par. & Per., 1890, 4, t. h. *Sargus rondeletii*; Genova.—1890: Microcotyle.
- sauromates* Poir., 1886, 24, t. h. *Elaphis sauromates*.—1886: Dist. 1895: D. (Dicrocœlium). 1904: *Plagiorchis*.
- sauromatis* Braun, 1893a, 876, for *sauromates* (Dist.).
- sawakinensis* Looss, 1899b, 672, t. h. *Larus* sp.; Sawakin, Egypt.—1899: *Stictodora* (type).
- scaber* Rud., 1819a, of Odn., 1905, 353.—1905: Dist. [1905: *Stephanochasmus*.]
- scabra* Mueller, 1788, 31, t. h. *Gadus barbatulus*.—1788: Fasc. 1803: Dist. 1889: *Apo-blema*. 1899: D. (*Hemiusurus*) *scabrum*.
- scabridum* Braun, 1900, 390, t. h. *Noctilio macropus*, *Molossus*, *Phyllostoma*; Brazil.—1900: *Urotrema* (type).
- scabrum* of Rud., 1819a, 424.—1819: Dist. (Echinost.). 1860: Echinost. 1899: *Anoikto*. [1899: *Stephanost.*] [1905: *Stephanochasmus*.]
- schistocotyle* Fischder., 1901, 373, t. h. *Dicotyles torquatus*; Brazil.—1901: *Cladorchis* (Taxorchis, type).
- schistolotyle* Fischder., 1903f, 607, for *schistocotyle* (Cladorchis).
- schlosseri* Graff, 1904, 457, t. h. *Botryllus schlosseri*.—1904: Plan.
- sciænæ* Ben. & Hesse, 1863, 123, t. h. *Sciæna aquila*.—1863: *Diplectanum*.
- sciænæ* P. J. Ben., 1856, 502, t. h. *Sciæna aquila*.—1856: *Epibdella*. 1891: *Phylline*. 1903: E. (Benedenia). [1878: *Trist.*] [1858: *Benedenia elegans*, type.]
- sciænæ* Goto, 1894a, 194, t. h. *Sciæna scina*; Japan.—1894: Microcotyle.
- sciænæ* Ben. & Hesse, 1863, 1864, 93, t. h. *Sciæna aquila*.—1863: *Udonella*.
- sciænæ* Tasch., 1878, 568, for *sciænæ* Ben., 1856.—1878: *Trist.*
- scimna* Risso, 1826, 262, t. h. *Echinorhinus spinosus*.—1826: Dist. [1850: D. *insigne*.]
- sciænæ* Ben. & Hesse, 1864, 123, for *sciænæ* (Diplectanum).
- sciænæ* Ben. & Hesse, 1864, 69, for *sciænæ* (Epibdella).

- scleroporium* Crep., 1844a, 112, t. h. *Chelonia mydas*; Vratislaviæ.—1844: Amphist.
- scoliocœlium* Fischder., 1904, 459, t. h. *Buffelus indicus* in Cochinchina and Annam; *Bos taurus* in Annam.—1904: Paramphist.
- scombr* Kuhn., 1829b, 361, t. h. *Scomber scomber*.—1829: Octost. 1832: Octobothrium. 1864: Octocotyle.
- scombr* Tasch., 1879, 612, t. h. *Scomber colias*; Naples.—1879: Didymozoon.
- scombr* of Grube, 1855a, 137, t. h. *Scomber scombrus*.—1855: Octobothrium. 1855: Tetracotyle. [1858: *Grubea cochlear*, type.] 1859: *Pleurocotyle* (type). [1859: *Pleurocotylus*, type.] 1864: *Grubea*.
- scombr* *pelamidis* Tilesius in Rud., 1809a, 437.—1809: Fasc. [1809: *Dist. clavatum*.]
- scombrinum* Linst., 1889, 80, for *sobrinum* (Dist.).
- scorpænæ* Rud., 1819a, 122, t. h. *Scorpæna scrofa*: C. E. V.—1819: Dist. 1886: D. (*Dicrocœlium*). 1899: *Dicrocœlium*. [1899: *Creadiinae*.]
- scorpi* Mueller, 1776, 223, t. h. *Cottus scorpius*.—1776: Fasc. 1803: Dist. [1850: D. *granulum*.]
- scymna* Villot, 1878, 3, for *scimna* (Dist.).
- scymni* Mont., 1893, 52, for *scimna* (Dist.).
- scymni ainosi* Dies., 1858e, 371, t. h. *Scymnus ainosi*.—[1857: *Polyst. sp.*] 1858: *Polyst.* 1858: *Onchocotyle*.
- scyphocephalum* Braun, 1899, 630, t. h. *Testudo matemata*; Brazil.—1899: Dist. 1901: *Acanthochasinus*.
- sebastis* Goto, 1894a, 187, t. h. *Sebastes sp.*; Japan.—1894: *Microcotyle*.
- secunda* Ssnitzin, 1905, 153; 1906, 687. t. h. *Corethra*, *Ephemera*; Warschau.—1905: Cerc.
- secundum* Nicoll, 1906, 514. t. h. *Hæmatopus ostralegus*, *Larus argentatus*, *L. ridibundus*.—1906: *Echinost.*
- secundus* Looss, 1907, 134, t. h. mule; Assam.—1907: *Gastrodiscus*.
- segmentatum* Mueller, 1894, July, 113.—1894: Dist. (*Echinost.*).
- semiarmatum* Mol., 1858, 131, t. h. *Acipenser naccari*: Patavii.—1858: Dist. 1886: D. (*Echinost.*).
- semiflavum* Linst., 1880, 50, t. h. *Petromyzon fluviatilis*.—1880: Dist.
- semifusum* Olss., 1876, 28, t. h. *Sula bassana*; Lund.—1876: *Monost.*
- semisquamosum* Braun, 1900, 228, t. h. *Vesperugo noctula*.—1900: Dist. [1907: *Parabascus*.]
- semperi* Weber, 1889.—*Temnocephala*.
- semperi* Mont., 1891, 129, for *semperi* (*Temnocephala*).
- sepiolæ* delle Chiaje, —.—: *Monost.*
- seriale* Rud., 1808a, 351; 1809a, 368. t. h. *Salmo alpinus*; Greenland.—1808: Dist.
- serialis* Looss, 1901, 620, t. h. *Thalassochelys corticata*; Alexandria, from Egyptian coast.—1901: *Adenogaster* (type).
- serotinus* Staff., 1904, 493, t. h. *Moxostoma macrolepidotum* Le S.; Canada.—1904: *Plagioporus* (type).
- serpens* Nitzsch, in Rud., 1819a, 88, t. h. *Falco haliaëtus*; Halle.—1819: Amphist. 1819: Holost.
- serpentatum* Mol. 1859, 830, t. h. *Sayris camperi*; Batavii.—1859: Dist. 1896: D. (*Brachylaimus*).
- serpentulum* Carus, 1884, 131, for *serpentatum* (Dist.).
- serrani* Mont., 1889, 322, t. h. *Serranus fimbriatus*, at Madeira, and *S. gigas* at Naples.—1889: *Didymozoon*.
- serrata* Frœlich, 1789, 148 [an Arachnoid], t. h. hares.—1789: *Linguatula* (type). 1800: *Polyst.* 1809: *Polyst.* (*Pentast.*). 1819: *Pentast.*
- serrata* Looss, 1899b, 592, t. h. *Varanus niloticus*; Zool. Inst. Leipzig.—1899: *Styphlodora* (type).
- serratus* Dies., 1850a, 385. t. h. *Aranus scolopaceus*; Brazil.—1850: Dist. 1860: *Echinost.*
- serrulata* Mueller, 1776.—Fasc. [1901: ? *Hemiurus crenatus*.]
- sessilis* Odhn., 1902, 27, t. h. *Nilkrokodil*.—1902: *Nephrocephalus* (type).
- sessilis* Goto, 1894a, 212, t. h. *Chærops japonicus*; Mitsugahama (Prov. Iyo, Japan).—1894: *Diclidophora*. 1895: *Cyclobothrium* (type).

- setifera* O. F. Mueller, 1786, 127, in aqua marina raro.—1786: Cerc. [1827: Trichoda.]
setifera Moul., 1856a, 214 and Dies, 1858d, 250 based on J. Mueller, 1850, 497, free in water; Marseille or Trieste.—1856: Cerc. 1858: C. (Gymnocephala).
setifera Mueller of Villot, 1879 (Cerc.), in *Scrobicularia tenuis*. See villoti (Cerc.).
setigera Giard, 1897c, 955, for *setifera*, 1850.—1897: Cerc.
setosicauda Dadai, 1888f, 84.—1888: Histrionella.
setosicaudata Mont., 1888, 77, for *setosicauda* (Histrionella).
setteni Numan, 1840, 358, t. h. *Equus caballus*.—1840: Monost. 1850: Pentast. [1891: Oestrid larva.] 1892: Monostomulum.
sialidis Linst., 1892, 334, t. h. *Sialis lutaria*.—1892: Dist.
siamense Poir., 1886, 327, t. h. *Crocodilus siamensis*.—1886: Diplost.
sibiricum Winnogradow, 1892, 116, t. h. *Homo*; Siberia.—1892: Dist. [Opisthorchis felineus.]
siemersi Buettel-Reepen, 1900, 589, t. h. *Sphyræna barracuda*; Atlantic.—1900: Dist.
[*sigmoidea* (Nitzschia), a diatom.]
sigmoideus Looss, 1899b, 608, t. h. *Passer dom.* at Alexandria, *Caprimulgus europæus*, at Cairo.—1899: *Phaneropsolus* (type).
signatum Duj., 1845a, 415, t. h. *Coluber natrix*; Rennes.—1845: Dist. (*Brachylaimus*).
signatum Duj., of Erc., 1881e, 73, in *Tropidonotus natrix*.—1881: Dist. 1899: Telorchis. [1893: *D. ercolanii*.]
siluri Wagener, 1857, see Braun, 1890a, 544.—*Dactylogyrus*.
siluri glanidis Wagener, 1857, see Dies., 1858e, 379.—*Dactylogyrus*.
simile Soms., 1890, 105, t. h. *Python molurus*.—1890: Dist.
simile Jægers., 1900, 737, see *pygmæa similis*.—[1900: *Levinsonia pygmæa* var.] 1902: *Spelotrema*.
simile Looss, 1899b, 601, see *similigenus*.—1899: Dist. 1899: *Hæmatolæchus*. 1902: *Pneumonæces*.
similigenus Stiles & Hass., 1902d, 20, for *simile* (Dist.) Looss, (*Hæmatolæchus*).
similiplexus Staff., 1902, 901, t. h. American frogs and toads.—1902: *Hæmatolæchus*. 1905: *Pneumonæces*.
similis Stoss., 1902, 24, t. h. *Himantopus atropterus*; Egypt.—1902: *Hæmatotrephus*.
simillimum Mueh., 1898, 18, t. h. *Fuligula nyroca*.—1898: Dist. 1899: *Psilost*.
simplex Odhn., 1900, 62, t. h. *Pleuronectes limanda*; Kristineberg, Sweden.—1900: *Aporocotyle* (type).
simplex Rud., 1809a, 370 (*æglefini* Mueller, 1776, renamed), t. h. *Gadus æglefinus*.—1809: Dist. 1886: *D. (Dicrocœlium)*. 1904: *Sinistroporus* (type).
simplex Polonio, 1859, teste Par., 1894, 147, t. h. *Lacerta muralis*; Padua.—1859: Dist.
simplex Looss, 1899b, 606, 607, *D. cygnoides* var. B. of Bensley, 1892, renamed.—1899: *Gorgodera*. 1902: *Gorgoderina* (type).
simplex Johnston, 1904, 112, t. h. *Ardea novæ hollandiæ* Lath.—1904: *Holost*.
simplissima Curtis, 1900a, 447.—1900: *Planaria*.
simulans Looss, 1896b, 52, t. h. *Pernis apivorus*; Alexandria, Egypt.—1896: Dist. 1898: *Opisthorchis*.
simulans poturycensis Kowal., 1898g, 71 or 1898h, 135, t. h. *Anas boschas dom.*—1898: *Opisthorchis*. 1898: *Campula*.
sinense Cobbold, 1875i, 423, t. h. *Homo*; China.—1875: Dist. 1895: *Opisthorchis*. 1896: *Dicrocœlium*. 1907: *Clonorchis* (type).
sinense Mosler & Peiper, 1894, 177 for *sinense* (Dist.).
sinense MacConnell, 1876, 343, misprint for *sinense* (Dist.).
singulare Mol., 1859, 288, t. h. *Ibis falcinellus*; Patavii.—1859: Dist. 1899: of Looss, *Stomylus* (type). 1892: *D. (Dicrocœlium)*. [1900: of Looss, *Stomylotrema*, type.]
singulare Keferstein, 1862a, 131, t. h. *Capitella rubicunda*; St. Vaast.—1862: *Loxosoma* (type).
singularis Stoss., 1902, 29, t. h. *Gallinula pusilla*; loc. not given.—1902: *Ophthalmophagus*.

- singularis* Mol. of Looss, 1899b, renamed *perpastum* Braun.—1899: *Stomylus* (type).
[1900: *Stomylotrema*, type.]
- sinuatum* Goto, 1894a, 239, t. h. *Histiophorus* sp.; Japan.—1894: Trist.
- sinuatum* Rud., 1819a, 97, t. h. *Ophidium imberbe*; Naples.—1819: Dist. 1901: *Allocreadium*. 1902: *Helicometra*.
- sinuatum* Mont., 1899, 109, misprint for *sinuatum* 1894 (Trist.).
- siredonis* Poir., 1886, 32, t. h. *Siredon mexicanus*, int.—1886: Dist. 1899: *Opisthioglyphe*.
- sirenis* Braun, 1893a, 870, for *sirenis lacertinae* (Dist.).
- sirenis lacertinae* Vaillant, 1863, 348, t. h. *Siren lacertina*.—1863: Dist.
- sluiteri* Brock, 1886, 543, t. h. *Diapoce metallicus*; Java.—1886: *Eurycœlum* (type). 1892: Dist. 1892: *Apoblema*. 1899: *Hemiuirus*.
- smaris* Ijima, in Goto, 1894a, 207, t. h. *Smaris vulgaris* (on caudal segment of a *Cymothoa*); Gulf of Naples.—1894: *Octobothrium*. 1894: *Diclidophora*.
- sobrinum* Levin., 1881a, 70, t. h. *Cottus scorpius*; Egedesminde.—1881: Dist. 1886: D. (Echinost.). 1899: *Stephanost*. 1899: *Anoiktost*. 1904: *Stephanochasmus*.
- soccus* Mol., 1858, 129, t. h. *Mustelus plebejus*; Patavii.—1858: Dist. 1886: D. (*Brachylaimus*). [1899: *D. megastomum*.]
- sociale* Luehe, 1901, 171, t. h. *Bufo melanostictus* Schneider; India.—1901: Dist.
- soleæ* Ben. & Hesse, 1863; 1864, 70, t. h. *Solea vulgaris*.—1863: *Phyllonella* (type). 1890: *Epibdella*. 1903: *Phylline*. 1879: Trist. (*Phyllonella*). 1878: Trist.
- soleæ* Duj., 1845a, 417, t. h. *Pleuronectes solea*; Rennes.—1845: Dist. (*Brachylaimus*).
- soleæforme* Rud., 1809a, 384, t. h. *Trigla gurnardus*; for *D. triglæ gurnardi*.—1809: Dist. 1828: Fasc.
- soleare* Braun, 1899e, 629, t. h. *Testudo midas*.—1899: Dist. 1901: *Cymatocarpus*.
- solidus* Looss, 19011, 619, t. h. *Chelone mydas*; Egypt.—1901: *Glyphicephalus* (type).
- solitaria* Looss, 1899b, 592, t. h. *Thalassochelys corticata*; Abukir.—1899: *Styphlodora*. 1903: *Renifer*.
- solivagus* Odhn., 1902, 29, t. h. *Clemmys caspica*.—1902: *Telorchis*.
- solæiformis* Blainv., 1828, 585, for *soleæforme* Rud., 1809a, 384.—1828: Fasc.
- somateriæ* Levin., 1881, 71, t. h. *Somateria mollissima*; Egedesminde.—1881: Dist. 1892: D. (*Brachycœlium*). 1899: *Lecithodendrium*. 1900: *Gymnophallus*. 1902: *Lecithodendrium*. 1904: *Leucithodendrium*.
- sonsinoi* Giard, 1880a, lxviii.—Linst., 1889, 23, for *sonsinoi* 1877 (*Gastrodiscus*).—1889: *Amphist*.
- sonsinoi* Cobbold, 1877e, Apr., 233, t. h. *Equus*; Egypt.—1877: *Gastrodiscus* (type). 1877: *Aspidocotylus*. [1889: *Amphist. sonsinoi*.] [1896: *Gastrodiscus ægyptiacus*.]
- sonsinoi* Poir., 1883, 74, for *sonsinoi* (*Gastrodiscus*).
- sonsinoi* Cobbold, 1879b, 359, for *sonsinoi* (*Gastrodiscus*).
- sophiæ* Stoss., 1886, 44, t. h. *Pagellus mormyrus*; Trieste.—1886: Dist. 1886: D. (Echinost.). [1899: *Creadiinae*, ?*Creadium*.]
- sorbens* Braun, 1899g, 490, t. h. *Tantulus loculator*; Brazil.—1899: *Clinost*.
- soricis* Dies., 1858e, 354, t. h. *Sorex araneus*.—1858: Dist. [1855: D. (*Dicrocœlium*).]
- soricis* Linst., 1877, 191, t. h. *Sorex vulgaris*.—1877: *Tetracotyle*.
- soricis aranei* Dies., 1855, 64; see *soricis*.—1855: Dist. (*Dicrocœlium*).
- spari* Rud., 1819a, 122, t. h. *Sparus erythrinus*, *S. smar*; C. E. V.—1819: Dist.
- spataceum* Stoss., 1886, 126, for *spathaceum* (Diplost.).
- spathaceum* Rud., 1819a, 109, t. h. *Larus glaucus*; Mus. Vien.—1819: Dist. 1845: Holost. 1850: Hemist. 1876: Diplost. 1898: *Conchosomum*.
- spathula* Brand., 1888a, 54, t. h. *Falco palumbarius*; Vienna Museum.—1888: Diplost. 1888: Hemist.
- spathula* Crep., 1829, 50, t. h. *Falco buteo*, *F. nisus*, *F. lagopus*.—1829: Holost. 1850: Hemist. [1898: *Conchosoma*.]
- spathulæforme* Brand., 1888a, 44, t. h. *Strix otus*.—1888: Diplost.
- spatulatum* Leuck., 1876, 871, not Crep., 1849, t. h. *Homo*; for *spatulatum* Rud., 1819.—1876: Dist. [*Opisthorchis sinensis*.]

- spathulatum* Rud. of Crep., 1837, 310, for *spatulatum*.—1837: Dist. 1898: Echinost. 1902: D. (Echinost.). 1902: Sodalis (type).
- spathulatum* Dies., 1859c, 426, for *spatulatum* (Monost.).
- spathulatum hepatis* Simmonds, 1901, 110, see *sinense* (Dist.).
- spatiosus* Brand., 1898a, 197, t. h. *Bos taurus*; Dschidda, Arabia.—1898: Gastrothylax.
- spatula* Duj., 1845a, 394, t. h. *Accentor modularis*, int.; Rennes.—1845: Dist. (Dicrocoelium).
- spatula* Sieb., 1835, 57, for *spathula* Crep., 1829.—1836: Holost. 1898: Conchosomum.
- spatula* Odhn., 1902, 66, t. h. *Bagrus docmac*, B. bayad; Sudan.—1902: Phyllodist. 1902: Catoptroides (type).
- spatulæforme* Odhn., 1902, 67, t. h. *Malapterurus electricus*; Africa.—1902: Phyllodist. 1902: Catoptroides.
- spatulatum* Cobbold, 1879, 28, for *spathulatum* Leuck., 1876, 871; not *spatulatum* Rud., 1819.—1879: Dist. [*Clonorchis sinensis*.]
- spatulatum* Leidy, 1859, 111, t. h. a fish; America.—1859: Monost.
- spatulatum* Rud., 1819a, 109, t. h. *Ardea minuta*; Vien. Mus.—1819: Dist. 1845: Holost. 1902: Sodalis (type) *spatulatus*. 1898: Echinost. [*spatulatum*].
- speciosus* Stiles & Hass., 1896, 151, *D. longissimum corvinum*, 1894, renamed because of *D. corvinæ*, 1886; but *corvinæ* should not invalidate *corvinum*.—1896: Opisthorchis.
- spenceri* Haswell, 1893e, 97, t. h. *Astacopsis bicarinatus*; Australia.—1893: Craspedella (type).
- spermatica* Blumberg, see Chiaje, 1833, 34.— : Cerc.
- sphæricus* Klein, 1905, 68, t. h. *Rana hexadactyla*.—1905: Pleurogenes.
- sphærocephalum* Westrumb, 1823, 396, t. h. *Coracias jugularis*; Rio de Janeiro, Brazil.—1823: Amphist. 1850: Holost.
- sphærostomum* Schlotthauber, 1860, 130, t. h. *Corvus caryocatactes*.—1860: Dist.
- sphærule* Looss, 1896b, 81, t. h. *Rhinolophus hipposcrepis* Bonap.; Ghizeh.—1896: Dist. 1899: Lecithodendrium.
- sphærule* Rud., 1803a, 23, t. h. *Corvus cornix*; Greifswald.—1803: Amphist. 1845: Holost.
- sphyræ* Braun, 1890a, 544, for *sphyræna* (Dactylogyrus).
- sphyræna* Tasch., 1879, 612, t. h. *Sphyræna vulgaris*; Naples.—1879: Didymozoon.
- sphyræna* Linst., 1878, 229, t. h. *Abramis vimba*; middle Europe.—1878: Dactylogyrus.
- spiculator* Duj., 1845a, 424, t. h. *Mus decumanus*; Rennes.—1845: Dist. (Echinost.). 1860: Echinost.
- spiculigerum* Muehling, 1898, 18, t. h. *Fuligula nyroca*.—1898: Dist. 1899: Psilost.
- spinaci* Goto, 1894a, 224, t. h. *Spinax* sp.; at Odawara, Japan.—1894: Onchocotyle. 1899: Squalonchocotyle.
- spindalis* Montgomery, 1906, 147, t. h. *Bos indicus*; India.—1906: Schistosoma.
- spinetum* Braun, 1901, 563, t. h. *Rhynchops nigra* L.; Brazil.—1901: Microlistrum.
- spiniceps* Looss, 1896b, 114, t. h. *Bagrus bayad*; Cairo, Egypt.—1896: Dist. 1899: Anoikost. 1899: Acanthost. (type). 1901: Acanthochasmus (type).
- spinifera* La Valette, 1855, 17, t. h. *Paludina vivipara*, *Planorbis corneus*.—1855: Cerc. 1858: C. (Nephrocephala).
- spiniferum* Ratz, 1903, 422, t. h. *Botaurus stellaris*; Hungary.—1903: Pegasomum.
- spinossissimum* Stoss., 1883, 112, t. h. *Box salpa*; Trieste.—1883: Monost. 1901: Centroderma (type).
- spinosum* Linst., 1880, 51, t. h. *Sylvia rufa*.—1880: Dist. 1892: D. (Dicrocoelium). [1899: ?D. cirratum.]
- spinulosum* Rud., 1808a, 458; 1809a, 425, t. h. *Larus naevius*, *L. cinerarius*, *Colymbus septentrionalis*; Greifswald.—1809: Dist. (Echinost.). 1858: Echinost.
- spinulosum* Hofmann, 1899a, 184.—1899: Dist. 1899: Harmost.
- spinulosum* Hofmann, 1899a, 178, of *pulmonates*.—1899: Cercariæum. [1899: Dist. spinulosum.]
- spinulosum* Looss, 19011, 623, t. h. *Chelone mydas*; Alexandria, Egypt, from Egyptian coast.—1901: Amphist.

- spirale* Dies., 1850a, 325, t. h. *Hypsilophus tuberculatus*, *Podocnemis tracaxa*, *Chelonsidis tuberculatus*; Brazil.—1850: Monost. 1892: Dist.
- spirale* Fil., teste Par., 1896, 2, t. h. *Dentex vulgaris*.—Dist.
- squali* E. Bl., 1847, 327, t. h. *Squalus*; New Zealand.—1847: Trist. [1850: T. blanchardii.]
- squali grisei* Risso, —, 38, see Dies., 1850a, 347.—Fasc. [1850: Dist. veliporum.]
- squamata* Kerbert, 1881a, 556, for *squamula* (Dist.).
- squamatum* Linst., 1906, 174, t. h. *Dissura episcopus*; Palatupana.—1906: *Lyperosomum*.
- squamatus* Odhn., 1905, 297 (armatum Mol. of Olss.), t. h. *Cottus scorpius*; Belgium.—1905: *Prosorhynchus* (type).
- squamosum* Villot, 1878, 20, t. h. *Strepsilas interpres*.—1878: Holost. 1890: Dist.
- squamula* Rud., 1819a, 103, t. h. *Mustela putorius*; Mus. Vien.—1819: Dist. 1845: D. (*Eury soma* [type]). 1850: Monost. 1892: D. (*Dicrocœlium*). 1898: *Eury soma* (type).
- squamula* Heath, 1902, 109, t. h. *Paralichthys californicus*.—1902: *Epibdella*. 1903: *Phylline*. 1905: E. (*Phylline*).
- squatinæ* Ben., 1865a, 11, t. h. *Squatina angelus*; Ostend, Belgium.—1865: *Pseudocotyle* (type).
- squillarum* Par. & Per., 1889, 76, t. h. *Bopyrus squillarum*; Triest.—1889: *Mescocotyle* (type). 1898: *Dactylocotyle*. 1895: *Octobothrium*. [1898: *Dactylocotyle merlangi*.]
- stagnalis* Mueller, 1774, 53, in *stagnis*.—1774: Fasc. 1776: *Planaria*.
- stanleyi* Cobbold, 1879b, 357, for *stanleyi* (*Amphist.*).—1879: *Amphist. collinsii*.
- stanleyi* Cobbold, 1875n, 819, t. h. *Equus caballus*; India.—1875: *Amphist*.
- steenstrupi* Odhn., 1902, 68, t. h. *Anarrhichas minor s. pantherinus*; Coll. Copenhagen.—1902: *Lepidophyllum* (type).
- stenocotyle* Cohn, 1902, 880, t. h. *Herpetodryas fuscus*; South America.—1902: *Leptophyllum* (type).
- stentomi* Goto, 1899a, 279, t. h. *Stenotomus chrysops*; Newport, R. I.—1899: *Microcotyle*.
- sternæ cantiaxæ* Dies., 1858, 355, t. h. *Sterna cantiaxa*; based on LaValette and Moul., 1856, 102.—1858: Dist.
- stossichi* Mont., 1893, 87, for *stossichii* (*Apoblemma*).—1899: *Hemiurus*.
- stossichi* Luehe, 1901 of Odhn., for *stossichii*.—1905: *Hemiurus*. [1905: H. lühei.]
- stossichi* Braun, 1899, 80, t. h. *Mustelus lævis*.—1899: *Calicotyle*.
- stossichianum* Mont., 1892, 12, t. h. *Box salpa*; Italy.—1892: Monost.
- stossichii* Mont., 1891, 512, t. h. *Clupea aurita*, C. pilchardus.—1891: *Apoblemma*. 1893: Dist. 1899: *Hemiurus*. 1907: *Aphanurus*, type.
- strephocœlium* Fischder., 1902a, 19, for *streptocœlium* (*Paramphist.*).
- streptocœlium* Fischder., 1901, 369, t. h. *Bos kerabau*; Ceylon.—1901: *Paramphist*.
- striata* Herbst, 1787a, 34.—1787: *Planaria*.
- striata* Par. & Perugia, 1890, 7, 21, t. h. *Lichia amia*; Triest.—1890: *Vallisia* (type). 1890: *Octocotyle*. [*Octobothrium arcuatum*].
- striatum* Rud., 1809a, 343, t. h. *Falco milvus*; Europe.—1809: *Amphist*. [1819: A. macrocephalum.] [1850: *Hemist. spathula*.]
- stridulæ* Reich, 1801, 371, t. h. *Strix stridula*.—1801: Bist. 1801: Dist. [1809: D. apiculatum.]
- strigata* Mueller, 1774, 66, in *aquis paludosis*.—1774: Fasc. 1776: *Planaria*.
- strigis* Schrank, 1788a, 16, t. h. *Weideneule*.—1788: *Festuc*. 1790: Fasc. [*Planaria*.] 1790: *Strigea*, type. [1801: *Amphist.*, type.] [1809: *Amphist. macrocephalum*, type.] [1850: *Holost. variabile*.]
- strigis stridulæ* Braun in Rud., 1809a, 347.—1809: Fasc.
- strigosum* Looss, 1899, 634, t. h. *Merops apiaster*; Marg.—1899: *Dicrocœlium*. 1899: *Lyperosomum*.
- sturionis* Rud., 1809a, 435, t. h. *Acipenser sturio*; Arimini.—1809: Dist. [—: D. hispidum.]
- sturionis* Abildg., 1794b, 55, t. h. *Stören*.—1794: *Hirudo*. —: Trist. [1850: *Nitzschia elegans*.] 1852–53: *Nitzschia*. [1878: T. elongatum.]

- stylosa* Linst., 1875, 193, t. h. *Planorbis vortex*.—1875: Cerc.
- subclavata* [Pallas, 1760, 29;] Goeze, 1782a, 178, t. h. *Rana*; Germany.—[1760: Fasc.] 1782: *Planaria*. 1788: Fasc. 1800: Dist. 1802: Amphist. 1836: *Diplodiscus* (type). [1850: *Diplocotyle*.]
- subclavata* ore sessile Pallas, 1760, or 1761, 271, t. h. *Rana*.—1760: Fasc.
- subclavatum* Sons., 1893, 187, for *subclavatum* (Amphist.).
- subflavum* Sons., 1892, 91, t. h. *Zamenis viridiflavus*.—1892: Dist. 1895: D. (*Brachylaimus*).
- [*subtilis* (Nitzschia), a diatom.]
- subtriquetrum* Rud., 1814a, 100, t. h. *Castor fiber*; Berlin, Germany.—1814: Amphist. 1840: Dist. 1901: *Cladorchis* (*Stichorchis*). 1902: *Stichorchis*.
- subtriquetrum giganteum* Kuech., 1855, 192 (?for *subtriquetrum*, *giganteum*).—1855: Amphist.
- subulata* Herbst, 1787a, 36.—1787 *Planaria*.
- subulo* Pag., 1857, 19, t. h. *Paludina vivipara*.—1857: Cerc. 1858: C. (*Acanthocephala*).
- suis* Stiles, 1898a, 22, *musculorum suis* Duncker, 1896, named binominally; t. h. *Sus scrofa* dom.; Germany.—1898: Agamodist.
- sulcatum* Linst., 1883, 309, t. h. *Perdix græca*; Turkestan.—1883: Dist. 1892: *Cladocœlium*.
- sulcatum* Rud., 1809a, 337, t. h. *Rana pipa*, intestine.—1809: Monost. (Monost.).
- superbum* Staff., 1904, 492, t. h. *Ameiurus nebulosus*, *Perca flavescens*; Canada.—1904: Phyllodist.
- suspensum* Braun, 1901, 948, t. h. *Corvus* sp.—1901: Dist.
- syamula*, see *squamula*.
- sygnoides* Nord., 1840, 617, for *cygnoides* (Dist.).
- sylvæ* Rud., 1819a, 675, t. h. *Sylvia cyanea*; Brazil.—1819: Amphist.
- synthes* Fischder., 1901, 371, t. h. *Bos kerabau*; Ceylon.—1901: *Gastrothylax*.
- syrinus* Kuech., 1855, 471, misprint for *gyrinus* (Cerc.).
- tabulatum* Mueller, 1897, 21, in *Numenius arquatus*.—1897: Echinost.
- tacapense* Sons., 1894, 111; 1894, 2, t. h. *Chamæleo vulgaris*, *Rana esculenta*, *Bufo* sp.; Gabes in Tunis.—1894: Dist. (*Brachycœlium*). 1899: *Pleurogenes*. [1899: D. medians Olss.]
- tadornæ* Rud., 1819a, 89, for *anatis tadornæ*, syn. of *isostomum*.—1819: Amphist.
- tænioides* Nord., 1840, 595, for *tænioides* (Polyst.).
- tænioides* Rud., 1809a, 441, t. h. *Canis familiaris*; France.—1809: Polyst. (Pentast.). 1819: Pentast. 1819: *Prionoderma*. [1824: *prionoderme* (type).] 1789: *Lingua-tula*, type.]
- tænioides* Mont., 1888a, 93, t. h. *Orthagoriscus mola*.—1888: *Didymozoon*. 1904: *Nematobothrium* (*Didymozoon*).
- tagax* Braun, 1901g, 896, t. h. *Hirundo versicolor*; Brazil.—1901: *Stomylotrema*.
- talpæ* Viborg, 1795, 242.—1795: Dist.
- talpæ cæcæ* Dies., 1850a, 472.—1850: *Trematodum*.
- tanagræ* Rud., 1819a, 674, t. h. *Tanagra tatao*; Brazil.—1819: Amphist.
- tarda* Steenstrup, 1842, 75, Cerc. *armata* Siebold, renamed.—1842: Dist. [1858: *Tetracotyle typica*.]
- tardigrada* Dies., 1850a, 293, D. *duplicatum*, renamed.—1850: *Rhopalocerca* (type).
- tartini* Stoss., 1899, 6, t. h. *Oblata melanura*; Triest.—1899: Dist.
- taschenbergi* Par., 1894, 704, for *taschenbergii* (*Dactylocotyle*).
- taschenbergi* Par. & Per., see St. Remy, 1898, 555.—*Diclodophora*.
- taschenbergii* Par. & Perugia, 1889, 743, t. h. *Sargus rondeletii*; Genova.—1889: *Choricotyle*. 1890: *Octobothrium*. 1894: *Dactylocotyle* (*Choricotyle*).
- tasmanica* Haswell, 1900, 430, t. h. *Astacopsis tasmanicus*.—1900: *Temnocephala*.
- tectum* Linst., 1873, 104, t. h. *Osmerus eperlanus*.—1873: Dist. [1905: *Brachyphallus crenatus*, type.]
- tellinæ balticæ* Dies., 1850a, 298, t. h. *Tellina baltica*; Gedani.—1850: Cerc. 1855: *Cercariæum*.
- temperatus* Staff., 1905, 689, t. h. *Rana catesbiana*, *R. virescens*; Canada.—1905: *Diplodiscus*.

- tenax* Mueller, 1773, 69, in infusione sordium dentium intra quatrimum.—1773: Cerc. 1827: Phacus.
- tener* Kowal., 1903, 517, t. h. *Mergus merganser*.—1903: Metorchis.
- tenere* Looss, 1898, 458, D. *tacapense* Sonsino of Looss renamed.—1898: Dist. 1898: Pleurogenes. 1899: Prosotocus. 1899: D. (Pleurogenes).
- tenerum* Looss, 1899b, 616, 622, see *tenere* (Dist.).
- tensum* Looss, 1902h, 141, t. h. *Mugil chelo*; Triest.—1902: Saccocœlium.
- tentaculata* Mueller, 1774, 63, in aquis palustribus.—1774: Fasc. 1776: Planaria.
- tenue* Lint., 1898, 535, t. h. *Roccus lineatus*.—1898: Dist.
- tenue tenuissime* Lint., 1898, 536, t. h. *Morone americana*.—1898: Dist.
- tenuicolle* Rud., 1819a, 93, t. h. *Phoca barbata*.—1819: Dist. 1892: D. (*Brachylaimus*). 1896: Opisthorchis.
- tenuicolle* Rud., 1819a, 85, t. h. *Lampris guttatus*; Groningæ.—1819: Monost. (Monost.) [1850: Dist. affine Dies. nec Rud.].
- tenuicollum* Westrumb, 1823, 391, t. h. *Falco rufus*; [Mus. Cat. Vien.].—1823: Amphist. 1850: Holost.
- tenuicollis-felineus* Looss, 1899, 678, see *tenuicollis*.—1899: Opisthorchis.
- [*tenuis* Muenster, 1842, 99.—*Hirudinella*. *Hirudella*, a leach.]
- tenuis* Wedl, 1857, 258, t. h. *Perca fluviatilis*.—1857: Gyrodactylus. 1858: Dactylogyrus.
- tenuissime* Lint., 1898, 536, t. h. *Morone americana*.—1901: Dist. [1898: D. *tenue*.]
- teres* Gœze, 1782a, 173.—1782: Planaria.
- teres duplici poro* Gœze, 1782a, 173.—1782: Planaria.
- teres poro simplici* Gœze, 1782a, 173.—1782: Planaria.
- tereticolle lucii* Mayer, 1841, 18.—1841: Distoma.
- tereticolle rosaceum* (Nordmann, 1832) Dies., 1850a, 364.—1850: Dist.
- tereticollis* Rud., 1802, 74-75, *lucii* Mueller renamed.—1802: Fasc. 1808: Dist. 1845: Dist. (*Brachylaimus*). 1899: *Azygia* (type). 1904: *Azygia*.
- teretiusculum* Mont., 1893, 40, t. h. *Solea klenii*.—1893: Dist.
- tergestinum* Stoss., 1889, 28, t. h. *Oblata melanura*; Triest.—1889: Dist.
- tergestinum* Stoss., 1883, 119, t. h. *Gobius niger*, G. jozo; Triest.—1883: Gasterost.
- terrestris* Mueller, 1774, 68, in asseribus muscisque humidis.—1774: Fasc. 1776: Planaria. [Rhynchodesmus.]
- terrestris* Linst., 1889c, 241, t. h. *Helix lens*; Greece.—1889: Cerc.
- terricola* Linst. 1889c, 241, t. h. *Helix* ? *vermiculata*; Algiers.—1889: Cerc.
- testudinis* Rud., 1819a, 121, t. h. *Testudo orbicularis*; C. E. V.—1819: Dist. [1850: Monost. *delicatum*.]
- testudinis* Braun, 1899, 630, MS. name in Vienna Coll.—1899: Monost. [1899: Dist. *scyphocephalum*.]
- testudinis midæ* Braun, 1899, 629, for *t. mydæ* (Dist.).
- testudinis mydæ* Rud., 1809a, 433, for *D. intestinalis testudinis mydæ*.—1809: Dist.
- teihyæ* Mont., 1892, 717.—1892: Monost.
- tetracystis* Gastaldi, 1854, 4, t. h. *Rana esculenta*.—1854: Dist. 1905: *Cystagora* (type).
- tetracystis ranæ esculentæ* Dies., 1855, 64; see *tetracystis*.—1855: Dist.
- tetragona* Mueller, 1774, 69, in stagno ac foveis aquæ purioris nec vulgaris.—1774: Fasc. 1776: Planaria.
- tetrodonis* Goto, 1894a, 213, t. h. *Tetrodon* sp.; Hagi, Japan.—1894: *Diclidophora*. 1896: *Heterobothrium* (type).
- tetrodonis* St. Remy, 1898, 554, for *tetrodonis* (*Diclidophora*) (*Heterobothrium*).
- texanicum* Francis, 1891c, 135, t. h. *Bos taurus*; Texas.—1891: Dist. [Fasc.] [Fasc. magna.]
- texicanum* Leuck., 1892b, 797, for *texanicum* (Dist.).
- thaumanthiadis* Braun, 1889a, 357, for *thaumantiatis* (Cerc.).
- thaumantiadis* Pag., 1862, 298, for *thaumantiatis* (Cerc.).
- thaumantiatis* Græffe, 1860a, 49, t. h. *Thaumantias*.—1860: Cerc.
- thethydis* delle Chiaje, teste E. Bl., 1847a, 309.—Monost.

- thetidicola* Otto, 1823, 294, t. h. Thetis fimbria.—1823: Vertumnus (type). [1823: Phœnicurus varius.]
- thetycola* (delle Chiaje?). see Pag., 1862, 298.—Monost.
- thompsonii* Mueller, 1841, 147.—1841: Cyclocirra (? type).
- thunninae* Par. & Per., 1889, 742, t. h. Thynnus thunnina; Genova.—1889: Octocotyle. 1890: Octobothrium. 1896: Hexacotyle.
- thynni* Delaroche, 1811a, 271, t. h. Scomber thynnus; Maroque.—1811: Polyst. [1815: Hexost., type.] 1828: Hexacotyla (type). 1840: Hexacotyle (type). [1850: Plagiopeltis duplicata, type]. 1890: Exacotyle. 1891: Plagiopeltis.
- thynni* Tasch., 1879, 612 (Monost. bipartitum, renamed), t. h. Thynnus vulgaris.—1879: Didymozoon, type. [1902: Didymocystis reniformis, type].
- thynni* Par. & Per., 1891, 19, [lapsus for thunninae?].—1891: Octocotyle.
- tinca* Modeer, 1790, 127, t. h. Cyprinus tinca.—1790: Fasc. 1809: Dist. [1809: D. globiporum]. [1850: D. perlatum.]
- tobiani* Krøyer, 1846–53a, 592, t. h. Ammodytes tobianus.—1846–53: Dist.
- todari* delle Chiaje, 1841, 139.—1841: Dist.
- todari* delle Chiaje, see Par., 1894, 168, in Ommastrephes todarus; Naples.—Monost.
- tornatum* Rud., 1819a, 684, t. h. Coryphaena equiselis, C. hippuris.—1819: Dist. 1845: D. (Apoblema). 1889: Apoblema. 1899: Hemiurus. 1901: Lecithocladium.
- torosum* Setti, 1897, 4, t. h. Squalus sp.; Massaua.—1897: Otiotrema (type). 1903: Dist.
- torpedinis* Chatin, 1874a, 11, t. h. Torpedo marmorata; Mediterranean.—1874: Amphibdella (type). 1890: Tetraonchus.
- torulosum* Rud., 1814a, 104, t. h. Silurus glanis; Greifswald.—1814: Dist.
- torva* Mueller, 1774, 62, in aquis.—1774: Fasc. 1776: Planaria.
- totari* E. Bl., 1847a, 309, for todari (Dist.).
- totari* E. Bl., 1847a, 309, for todari (Monost.).
- trachea* Montagu, 1811, 194, t. h. poultry, Gallus gallus.—1811: Fasc. 1819: Dist. [Syngamus trachealis, a nematode].
- tracheicola* Braun, 1901, 943, t. h. Anas fusca; Vienna, Austria.—1901: Orchipedum (type).
- trachini* Par. & Perugia, 1889, 744, t. h. Trachinus radiatus; Genova.—1889: Microcotyle.
- trachuri* Ben. & Hesse, 1863, 1864, 118, t. h. Caranx trachurus.—1863: Gastrocotyle (type).
- trachuri* Par. & Perugia, 1890, 11, t. h. Caranx trachurus; Genoa.—1890: Pseudaxine (type).
- translucida* Staff., 1902, 413, t. h. Bufo lentiginosus, Rana virescens; America.—1902: Gorgodera. 1905: Gorgoderina.
- transversalis* Rud., 1802, 69, t. h. Cobitis fossilis; Berlin, Germany.—1802: Fasc. 1809: Dist. 1901: Allocreadium.
- trapezium* Leidy, 1891a, 414, t. h. Pandion carolinensis.—1890: Dist.
- tremellaris* Mueller, 1774, 72, in mare Balthico, Hafniam alluente.—1774: Fasc. 1776: Planaria.
- tremoctopodis* Kœlliker, 1849c, 67.—1849: Hectocotylus. [1849: ♂ of Tremoctopus.]
- triangulare* Johnston, 1904, 108, t. h. Dacelo gigas.—1904: Hemist.
- triangulare* Dies., 1850a, 351, t. h. Merops apiaster.—1850: Dist. 1899: Megacetes (type). 1901: Plagiorchis. 1900: Eumegacetes (type).
- triangulare* Dies. of Looss, see emendatus Braun.—1899: Megacetes (type). [1900: Eumegacetes, type].
- triangulare* Johnston, 1904, 108, t. h. Dacelo gigas.—1904: Hemist.
- triangularis* Goto, 1894a, 200, t. h. Acanthias schlegelii; Misaki, Japan.—1894: Axine.
- tricaudata* Schrank, 1803, 86.—1803: Cerc.
- tricolor* Stiles & Hass., 1894, 729, t. h. Lepus sylvaticus, L. americanus; Maryland.—1894: Dist.
- trifolium* Braun, 1901, 947, t. h. Ardea coicoides; Brazil.—1901: Dist.
- triganocephalum* Kampmann, 1894b, 454, misprint for trigonocephalum (Dist.).
- triglæ* Ben. & Hesse, 1863; 1864, 92, t. h. Trigla.—1863: Udonella.
- triglæ* Ben. & Hesse, 1863, 117; 1864, 117, t. h. Trigla hirundo.—1863: Axine.

- triglæ* Ben., 1870, 30, t. h. *Trigla hirundo*; Belgium.—1870: *Gasterost.*
- triglæ* Rud., 1819a, 122, t. h. *Trigla cuculus*; C. E. V.—1819: *Dist.*
- triglæ gurnardi* Rathke, 1799, 68, t. h. *Trigla gurnadus*.—1799: *Dist.* [D. soleæforme.]
- triglæ pini* Dies., 1855, 64, t. h. *Trigla pini*.—1855: *Dist.* [1858: D. homoeostomum.]
- trigonocephala* Rud., 1802b, 87, F. melis Schrank, renamed, t. h. Schweinigel.—1802: Fasc. 1809: *Dist.* (Echinost.). [1828: type of festucaire.] 1860: *Echinost.*
- trigonocephalum* Rud., 1809a, 336, t. h. *Testudo mydas*; Europe.—1809: *Monost.* (Monost.) 1901: *Pleurogoninus*.
- trigonocephalum* Rud. of Looss, 1899b, 666, renamed *obliquus* 1901.—1899: *Pronocephalus* (type, see *obliquus*).
- trigonocerca* Dies., 1858d, 259, C. limacis Moul., t. h. *Limax cinereus*, L. (*Arion*) *rufus*; Geneva.—1858: *Cerc.* (*Acanthocephala*).
- trigonostoma* Wagener, 1857, 90, t. h. *Cyprinus rutilus*.—1857: *Dactylogyrus*.
- triloba* Fil., 1857c, 3, t. h. *Planorbis carinatus*, *Lymnæus stagnalis*; Turin.—1857: *Cerc.* 1858: C. (*Acanthocephala*).
- trilobum* Rud., 1819a, 104, t. h. *Pelecanus carbo*; Mus. Vien.—1819: *Dist.* 1850: *Hemist.*
- tringæ* Brand., 1892, 507, t. h. *Tringa variabilis*; Sinai.—1892: *Monost.* [1902: *Cyclocoelum*.] 1902: *Hæmatotrephus*.
- tringæ helveticæ* Rud., 1819a, 120, t. h. *Tringa helvetica*; C. E. V.—1819: *Dist.* [1850: D. cinctum.]
- tripes* Bosc, 1802a, v. 3, 227, see also *tripos* (Cerc.).
- tripos* Mueller, 1776, 206, in *aqua marina*.—1776: *Cerc.* 1827: *Ceratium*.
- tripunctata* Erc., 1881e, 23, t. h. *Planorbis corneus*; Italy.—1881: *Cerc.*
- tripus* Gmelin, 1790a, 3892, for *tripos* (Cerc.).
- triserialis* Dies., 1839a, 234, t. h. *Anas anser* dom. et *ferus*, etc.; Europe.—1839: *Notocotylus* (type). 1840: *Nocotylus*. 1850: *Notocotyle* (type). 1860: *Monost.*
- truncatum* Perroncito, 1882, 248, for *truncatum* (Dist). [Ercolani.]
- truita* Bosc, 1802a, 274, for *truttæ* (Fasc.).
- truncata* Mueller, 1806, 35, t. h. *Perca lucioperca*.—1806: *Fasc.* 1814: *Dist.*
- truncata* Dies., 1850a, 422, *Octostoma scombr*i renamed, t. h. *Scomber scombrus*; Rhedoni.—1850: *Octocotyle*. 1858: *Octoplectanum*. 1879: *Octobothrium*.
- truncata* Goto, 1894a, 191, t. h. *Pristipoma japonicum*; Japan.—1894: *Microcotyle*.
- truncata* Bosc, 1802a, 262.—1802: *Planaria*.
- truncata* Leidy, 1851b, in 224–227, free form; Newark, Del.—1857: *Planaria*.
- truncatum* Rud., 1819a, 91, t. h. *Phoca vitulina*; Europe, Berlin, Vratislaviæ.—1819: *Amphist.* 1886: *Dist.* 1896: *Opisthorchis*. 1899: *Metorchis*.
- truncatum* F. S. Leuck., 1842, 34, t. h. *Sorex fodiens*.—1842: *Dist.*
- truncatum* Erc., 1859a, 382, t. h. *Canis familiaris*; Italy.—1859: *Dist.* [D. *truncatum* (Rud.).]
- trunkatum* Schneidemuehl, 1896, 303, for *truncatum* (Amphist.).
- truttæ* Moul. of Dies., 1858, 356.—1858: *Dist.*
- truttæ* Frœlich, 1789, 126, t. h. *Salmo trutta*; Europe.—1789: *Fasc.* [1809: *Dist.* laureatum.]
- truttæ (intestinalis)* Rœderer, 1762, 537, t. h. forelle.—1762: *Fasc.* [1810: *Ligula nodosa*.] [1809: ?*Echinorhynchus fusiformis*.] [1905: *Echinorhynchus*.]
- tuba* Linst., 1878, 228, t. h. *Squalius leuciscus*.—1878: *Dactylogyrus*.
- tuba* Braun (1805), 49.—1805: *Hirudo*. [1809: *Amphist. subclavatum*.]
- tubarium* Rud., 1819a, 111, t. h. *Sciæna umbra*; Spezia.—1819: *Dist.*
- tuberculata* Fil., 1857c, 8, t. h. *Paludina impura*.—1857: *Cerc.* 1858: C. (*Gymnocephala*).
- tuberculatum* Cobbold, 1875n, 819, t. h. ox; India.—1875: *Amphist.*
- tubiporum* Dies., 1836a, 14, t. h. *Trigla hirundo*.—1835: *Trist.* 1840: *Capsala*. [1850: *Trochopus longipes*, type.] 1864: *Trochopus* (type).
- tubipulum* Braun, 1900, 388, t. h. *Vespertilio* sp.—1900: *Dist.*
- tubulatum* Rud., 1819a, 675, t. h. *Muræna* sp.; Brazil.—1819: *Dist.*
- tumbesiana* Wacke, 1903, 1.—1903: *Temnocephala*.

- tumidulum* Rud., 1819a, 95, t. h. *Syngnathus hippocampus*; Vienna.—1819: Dist. 1901: *Allocreadium*.
- turbo* Mueller, 1786, 123, in aqua rivulari cum *Lemna rarior*.—1786: Cerc. [1827: *Urocentrum*, type.]
- turdi* Rud., 1819a, 120, t. h. *Turdus saxatilis*; C. E. V.—1819: Dist. [1850: D. mesostomum; D. *nephrocephalum*.]
- turgidum* Brand., 1888, 247, t. h. *Rana esculenta*.—1888: Dist. 1899: *Brandesia* (type).
- tursionis* Marchi, 1872, 304, t. h. *Delphinus tursio*, int.—1872: Dist. 1896: D. (*Dicrocoelium*) *longissimum* Poir.]
- tynni* Crety, 1892c, 399, for *thynni* (*Exacotyle*).
- typica* Dies., 1858e, 366, t. h. see p. 369; Europe.—1858: *Tetracotyle* (type). [typus, reptile, *Bucephalus*.]
- umblæ* Fabricius, 1780a, 329, t. h. *Salmo umbla*; Greenland.—1780: Fasc. 1803: Dist. [1809: D. *seriale*.]
- umbonatum* Odhn., 1902, 21, t. h. *Krokodil*; Nile.—1902: *Echinost*.
- umbrinæ* Stoss., 1885, 159, t. h. *Umbrina cirrhosa*; Triest.—1885: Dist. 1905: *Allocreadium*. 1886: D. (*Brachylaimus*).
- unciforme* Rud., 1819a, 674, t. h. *Oriolus cristatus*; Brazil.—1819: Amphist. 1850: Holost.
- uncinata* Dies., 1850a, 412, lapsus for *uncinulata*.—1850: Fasc. [1850: *Polyst. integerrimum*.]
- uncinatum* Macé (1880).—1880: *Polyst*.
- uncinatum* Zed., 1803a, 221, t. h. *Fulica chloropus*.—1803: Dist. 1809: D. (*Echinost*). 1860: *Echinost*. [1892: *E. cinctum*.]
- uncinatum* Mont., 1889, 117, t. h. ?*Pleuronectes*; Coll. Leuck.—1889: *Trist*.
- uncinatus* Wagener, 1857, pl. 13, fig. 2, t. h. *Perca fluviatilis*.—1857: *Dactylogyrus*.
- uncinulata* Braun, 1790, 58, t. h. *Rana esculenta*; Germany.—1790: *Planaria*. 1790: Fasc. [1800: *Polyst. ranæ*, type.] [1850: *Polyst. integerrimum*.]
- uncinulatum* Macé in Braun, 1890a, 418, for *uncinatum* (*Polyst*).
- undulatus* Looss, 1899, 594, t. h. *Thalassochelys corticata*; Abukir.—1899: *Cymatocarpus* (type).
- unguiculatus* Mont., 1888, 90, for *unguiculatus Tetraonchus* (*Dactylogyrus*).
- unguiculatum* Rud., 1819a, 91, t. h. *Triton palustris*; Berlin, Germany.—1819: Amphist. 1836: *Diplodiscus*.
- unguiculatus* Wagener, 1857, 61.—1857: *Dactylogyrus*. 1858: *Tetraonchus*.
- unicum* Mol., 1859, 835, t. h. *Centrolophus pompilius*; Padua.—1859: Dist. 1886: D. (*Podocotyle*).
- unicum* Odhn., 1902, 66, t. h. *Serranus* sp.; Sinai, Red Sea.—1902: *Phyllodist*.
- unicum* Looss, 1896b, 44, renamed *reniferum*; t. h. *Trionyx nilotica*; Egypt.—1896: Dist. 1899: *Astia* (type).
- unionicola* Graff, 1904, 457, t. h. *Muscheln*.—1904: *Planaria*.
- upupæ* Schrank, 1790, 123, t. h. *Upupa epops*, rectum.—1790: Fasc. [1809: Dist. *involutum*.]
- urcatum* Luehe, 1900, 489, misprint for *furcatum* (Dist.).
- urna* Looss, 1907, 485, t. h. *Vesperugo kuhli*; Cairo, Egypt.—1907: *Lecithodendrium*.
- urniceps* Schlotthauher, 1860, 129, t. h. *Falco pygargus*.—1860: Holost.
- urnigerum* Rud., 1819a, 89, t. h. *Rana esculenta*; Mus. Vien.—1819: Amphist. 1845: Holost. [1850: *Codoncephalus mutabilis*, type.]
- urocotyle* Par., 1899, 6, t. h. *Scorpæna scrofa*; Portoferraio.—1899: *Pleorchis*. 1905: *Derogenes*.
- vagans* Leidy, 1850, 304, t. h. *Helix alternata*, H. *albolabris*; D. *helicis* renamed.—1850: Dist. 1855: *Cercariæum*.
- vaginatum* Brand., 1888a, 64, t. h. *Cathartes* sp.; Brazil.—1888: Holost.
- valdeinflatum* Stoss., 1883, 114, t. h. *Gobius jozo*; Triest.—1883: Dist. 1886: D. (*Echinost*). 1898: *Agamodist*. [1899: *Stephanost. cesticillus*.]
- valdeinflatum* Nicoll, 1907, 69, for *valdeinflatum* (Dist.).

- validum* Linst., 1886, 124, t. h. *Delphinus* sp.; South Atlantic.—1886: Dist. 1892: D. (*Brachylaimus*).
- vallei* Stoss., 1896, 129, t. h. *Falco subbuteo*.—1896: Dist.
- vallei* Stoss., 1899, 3, t. h. *Thalassochelys caretta*; Corfu.—1899: *Aspidogaster*. [1901: *Lophotaspis adhærens*.] 1902: *Lophotaspis*, type. 1902: *Amphist.*, probably lapsus.
- vallei* Par. & Per., 1895, 3, t. h. *Naucrates ductor*; Genova.—1895: *Placunella*. 1903: *Ancyrocotyle* (type).
- van benedeni* St. Remy, 1898, 567, for *van benedenii* (*Dactylogyrus*).
- van benedenii* Par. & Per., 1890, 96–97, t. h. *Mugil auratus*.—1890: *Tetraonchus*.
- van benedenii* Par. & Per., 1895, 2, t. h. *Mugil auratus*; Triest.—1895: *Dactylogyrus*. See also *benedenii*.
- vanelli* Rud., 1819a, 87, t. h. *Tringa vanellus*; Mus. Vien.—1819: *Monost.* [1850: *M. mutabile*.]
- variabile* Leidy, 1856, 44, t. h. *Tropidonotus sipedon*.—1856: Dist. 1903: *Renifer*.
- variabile* Nitzsch, 1819, 400, includes *macrocephalum* Rud., t. h. owls; Germany.—1819: *Holost.* (type). 1860: *Monost.*
- varica* Mueller, 1784, 93, t. h. *Salmo salar*, stomach.—1784: Fasc. 1803: Dist. 1886: D. (*Brachylaimus*). 1899: *Hemiurus*. 1901: *Derogenes*.
- varicans* Abildg., 1794, 89, in *aqua rivulari*.—1794: Cerc. 1850: *Cheilost.* (type).
- variegatum* Crep., 1825a, 38, t. h. *Larus marinus*; Greifswald.—1825: *Amphist.* 1845: *Holost.*
- variegatum* Rud., 1819a, 99, t. h. *Rana esculenta*; Berlin.—1819: Dist. 1845: D. (*Brachylaimus*). 1847: *Brachylemus*. 1850: *Brachylemus*. 1899: *Hæmatolœchus* (type). 1902: *Pneumonœces* (type).
- varigatum* Looss, 1892, 93, misprint for *variegatum* (Dist.).
- variolaris* Fuhrmann, 1904, 59, t. h. *Rostrhamus sociabilis*; South America.—1904: *Bothriogaster* (type).
- [*variolosus* Gärtner (Dist.), a tunicate.]
- varioplexus* Staff., 1902, 901, t. h. *Rana catesbiana*; Canada.—1902: *Hæmatolœchus*. 1905: *Pneumonœces*.
- varium* Eysenhardt, 1829, 148, t. h. *Gadus merluccius*.—1829: Dist.
- varsoriensis* Ssinitzin, 1905, 36, t. h. frogs; Warschau.—1905: *Gorgodera*. 1906: Cerc.
- vellellæ* Fil., 1843, 66, see Dies., 1850a, 379, t. h. *Vellella spirans*; Naples.—1843: Dist. [1850: D. *megacotyle*.]
- vellellæ* Graff, 1904, 456.—1904: Plan.
- veliporum* Johnston, 1902, 329, misprint for *veliporum* (Dist.).
- veliporum* Crep., 1837a, 310, t. h. *Squalus griseus*.—1837: Dist. 1886: D. (*Cladocœlium*). 1904: *Otodist.* (type).
- venarum* Treutler, 1793, iv, 23, t. h. *Homo*.—1793: *Hexathyridium*. 1803: Fasc. 1803: Polyst. 1828: *Hexathyridium*. 1836: Polyst. (*Hexast.*). 1850: *Hexacotyle*. [Hexast.] [1840: *Linguatula*.]
- ventricolum* Rud., 1809a, 334, misprint for *ventricosum* (*Monost.*).
- ventricosa* Rud., 1802, 20, t. h. *Nachtigall*; Greifswald.—1802: *Festucaria*. 1809: *Monost.* (*Monost.*).
- ventricosa* Bosc., 1802a, 257.—1802: *Planaria*.
- ventricosa* Pallas, 1774, 17, host not given; Amboyna.—1774: Fasc. 1853: *Hirudinella*. 1893: Dist.
- ventricosum* Rud., 1819a, 108, t. h. *Clupea alosa*; Arimini.—1819: Dist. 1886: D. (*Apoblema*). 1893: *Apoblema*.
- ventricosum* Stoss., 1898, 29, t. h. *Alausa finta*; Triest.—1898: Dist. [1898: *Apoblema ocreatum* Rud.]
- ventricosum* var. *minor* Shipley, 1900, 540, t. h. *Pimelepterus* sp.; New Britain.—1900: Dist.
- vereticolle lucii* Rud., 1809a, 400, lapsus for *tereticolle lucii* (Dist.).
- vermicularis* Mueller, 1786, 133, in *aqua ubi Lemna vegetat*.—1786: Cerc. 1827: *Dicranophorus*.
- verrilli* Goto, 1899a, 283, t. h. a skate (*Raja*); Cape Cod.—1899: *Acanthocotyle*.

- verrucosum* Mont., 1892. 40. for *verrucosum* (Notocotyle).
- verrucosa* Frölich, 1789. 112. t. h. domesticated geese.—1789: Fasc. 1800: Monost. 1809: Monost. (Monost.). [1839: Notocotylus triserialis.] 1892: Notocotyle. 1905: Catatropis (type).
- verrucosum* Busch, 1851. 100. t. h. Ophidium barbatum.—1851: Dist. 1886: D. (Crossodera).
- verrucosum* Mol., 1859. 842. t. h. Labrax lupus: Rennes. Padua.—1859: Dist. 1886: D. (Dicrocoelium).
- verrucosum* Poir., 1885. 10. t. h. Thynnus.—1885: Dist.
- verrucosum* Lint., 1892. 96. t. h. Larus californicus.—1892: Dist.
- verucosa* Odhn. LV. 1902. 63. for *verrucosum* (Notocotyle).
- vesicata* Ulicný, 1878. 211. t. h. Cyclas rivicola: Mähren.—1878: Cerc. [1894: C. macrocerca.]
- vesiculifera* Dies., 1855a. 389. C. vesiculosa Fil., renamed.—1855: Cerc. 1855: C. (Xiphidiocerc.). 1858: C. (Acanthocephala).
- vesiculosa* Dies., 1850a. 295. Cerc. I Baer, renamed; t. h. Paludina vivipara: Regiomontii.—1850: Cerc. 1855: C. (Eucerc.). 1858: C. (Acanthocephala).
- vesiculosa* of Fil., 1854a. 12. t. h. Paludina vivipara.—1854: Cerc. [1855: C. (Xiphidiocerc.) vesiculifera.]
- vespertilionis* Mueller, 1784. 95. t. h. Vespertilio auritus.—1784: Fasc. 1803: Dist. [—: Plan.] [1850: D. lima.] 1900: Plagiorchis.
- vespertilionis* Rud., 1819a. 87. t. h. Vespertilio noctula: Cat. Ent. Vienn.—1819: Monost.
- vetustum* Stafl., 1904. 487. t. h. Limanda ferruginea: Woods Hole.—1904: Stenakron (type).
- verans* Braun, 1901. 947. t. h. Turdus merula.—1901: Dist.
- viber* Lint., 1900. 269. t. h. Sphaeroides maculatus.—1900: Dist.
- vicarium* Braun, 1901g. 896. t. h. Ibis coerulescens: Brazil.—1901: Stomylotrema.
- vicinus* Odhn., 1902. 24. t. h. Nilkrokodil: Sudan.—1902: Acanthochasmus.
- villoti* Mont., 1888. 194. C. setifera Mueller, of Villot, 1879, renamed, in Scrobicularia tenuis.—1888: Cerc.
- vinal-edwardsii* Lint., 1901. 416. t. h. Opsanus tau. Orthopristis chrysopterus: Beaufort, N. C.—1901: Monost.
- viperæ* Linst., 1877. 186. t. h. Pelias berus.—1877: Dist. 1895: Agamodist.
- viperæ* Ben., 1870. 26. t. h. Trachinus viperæ: Belgium.—1870: Gasterost.
- virgula* Fil., 1837. 338. t. h. Paludina impura. Valvata piscinalis: Ticini. Italy.—1837: Dist. 1850: Cerc. 1855: C. (Eucerc.). 1858: C. (Acanthocephala). [1858: D. maculosum.]
- viridata* Bosc., 1802a. 258.—1802: Plan.
- viridis* Mueller, 1786. 126. in aquis fossarum stagnantibus primo vere.—1786: Cerc. 1815: Furcocerca. 1827: Enchelys.
- viridis* Bosc., 1802a. 256.—1802: Plan.
- viridis* Mueller, 1774. 59. in radicibus iucorum; Greenland.—1774: Fasc.
- vitellatum* Linst., 1875. 189. t. h. Totanus hypoleucus.—1875: Dist. 1901: Plagiorchis. 1892: D. (Brachylaimus).
- vitellilobum* Olss., 1876. 14. t. h. Rana temporaria.—1876: Dist. 1889: D. (Dicrocoelium). 1902: Gorgoderina. 1906: Gorgodera. 1906: Cerc.
- vitellosum* Lint., 1900. 269. t. h. Merluccius bilinearis: Woods Holl.—1900: Dist. [vitreum Sars (Dist.), a tunicate.]
- vitrina* Linst., 1887. 105. t. h. Zebrina detrita: Frauenberg b. Sondershausen.—1887: Cerc.
- vitrinæ* Targioni Tozzetti, 1873. 335. in vitrine.—1873: Dist.
- vitta* Duj., 1845a. 418. t. h. Mus musculus: Rennes.—1845: Dist. (Brachylaimus).
- vivæ* Ben., 1870. 25. t. h. Trachinus draco: Belgium.—1870: Gasterost.
- vivar* Sons., 1892. Oct. 7. 137. t. h. Cleopatra bulimoides: Cairo. Egypt.—1892: Cerc.
- viverrini* Poir., 1886. 27. t. h. Felis viverrinus.—1886: Dist. 1892: D. (Dicrocoelium). 1896: Opisthorchis.

- vivipara* Ben., 1870, 28, t. h. *Mugil chelo*; Belgium.—1870: Dist.
- viviparæ* Linst., 1877, 185, t. h. *Paludina vivipara*.—1877: Monost. 1892: Monostomulum.
- viviparæ fasciata* Linst., 1877b, 186, t. h. *Vivipara fasciata*.—1877: Dist.
- viviparum* Olss., 1868, 28, t. h. *Pleuronectes microcephalus*.—1868: Dist. 1886: D. (Echinost.). 1901: Zoogonus. 1902: Zoogonoides (type).
- vogtianum* Baudon, 1881, 145, t. h. *Succinea baudoni*.—1881: *Leucochloridium*.
- voluptarium* Braun, 1901, 945, t. h. *Falco* sp.—1901: *Dicrocoelium*.
- volvens* Nord., 1832, 28, t. h. *Gadus lota*, *Perca cernua*, *P. fluviatilis*, *P. lucioperca*.—1832: Diplost. (type). 1833: Dist. [1898: Hemist. spathaceum.]
- vulgaris* Cerf., 1899a, 375, t. h. *Mustela vulgaris*.—1899: *Squalonchocotyie*.
- vulpina* Abildg., 1790, 63.—1790: Dist. [Hemist. alatum.]
- vulpis* Gmelin, 1790a, 3053, t. h. *Canis vulpes*; Europe.—1790: Fasc. [1809: D. alatum.] [1850: Hemist. alatum.]
- vulpis* Schrank, 1788, 52, t. h. *Canis vulpes*; Germany; *Planaria alata vel dubia* Gœze, 1782a, 176, pl. 14, figs. 11–13, renamed.—1788: *Alaria* (type).
- wachniæ* Rud., 1819a, 122, 427, t. h. *Gadus wachnia*.—1819: Dist. 1878: *Trematodum*.
- watsoni* Conyngham, 1904, Aug. 13, 464; Sept. 17, 663. t. h. *Homo*; in Zola (Nigeria), came from Adamawa, German West Africa.—1904: Amphist. 1905: *Cladorchis*.
- wedli* Ariola, 1902, 105, t. h. *Thynnus vulgaris*; Naples.—1902: *Didymocystis*.
- wedlii* Cobbold, 1860a, 18, t. h. *Rana esculenta*.—1860: Dist.
- wedlii* Cobbold, 1860a, 43, t. h. *Rhombus lævis*, *M. rhombi lævis* Wedl, renamed.—1860: Monost.
- westermani* Kerbert, 1881a, July, 529, for *westermanii*.—1881: Dist. 1891: Dist. 1899: *Paragonimus* (type). 1905: *Paragonimus*.
- westermanii* Kerbert, 1878a, 271, t. h. *Kœnigstiger*.—1878: Dist. 1890: *Mesogonimus*. [1899: *Paragonimus* (type).] [1899: *Polysarcus*, type.] 1900: *Paragonimus*.
- westermanni* Leuck., 1889, 404, for *westermanii* Kerbert, 1878.—1889: Dist. 1890: *Mesogonimus*. 1891: Dist. 1898: Dist. (*Mesogonimus*). [1899: *Paragonimus* (type).] 1899: *Polysarcus* (type).
- westrumbii* Cobbold, 1860a, 45, Amphist. *sphærocephalum* Westrumb, renamed; t. h. *Coracina scutata*; Brazil.—1860: Holost.
- winogradoffi* Jaksch, 1897a, 219 for *sibiricum*, t. h. *Homo*.—1889: Dist.
- xanthostoma* var. *compascua* Kowal., 1898, 71, t. h. *Anas querquedula*.—1898: *Opisthorchis*.
- xanthosomum* Crep., 1846a, 138, t. h. *Colymbus septentrionalis*; Germany.—1846: Dist. 1898: *Opisthorchis*. 1902: *Metorchis*.
- zschokkei* Volz, 1899, 231, t. h. *Heterodon platyrhinus*.—1899: Dist. 1903: *Renifer*. [For addenda, see p. 385.]

BIBLIOGRAPHY OF SUPERGENERIC, GENERIC, AND SPECIFIC NAMES USED IN TREMATODA AND OF DISEASES CAUSED BY TREMATODA.

The main portion of this index is made up of an alphabetical list of superspecific names used in connection with *Trematoda*. Under each generic or subgeneric name will be found a list of the species and subspecies which have been placed in the groups in question. The references following the technical names represent the places in literature which bear upon the technical names in question. Names of diseases caused by *Trematoda* are also inserted in this list.

In all cases possible, the type species^a is mentioned for genera. In connection with the species, the hosts and locality, at least the type locality, are usually given.

- (ACANTHOCEPHALA) Dies., 1858d, 253-255 (subg. of Cerc.) [not Acanthocephala Rud., 1808, worms, order: Acanthocephali Burm., 1837, worms, order; Acanthocephalus Kœlreuter, 1771, worms, genus: Acanthocephalos Gœze, 1782, for Acanthocephalus, 1771: Acanthocephala Laporte, 1832, hemipteron, genus: Acanthocephalus for Acanthocephala 1832]. C. (Xiphidiocerc.), 1855, renamed, hence same type.^a
- armata* (Sieb., 1837) Dies., 1858d, 251-252 (larva of Dist. endolobum Duj. [Opisthoglyphe 1899, type]) (in Planorbis corneus, Paludina impura, Lymnaeus stagnalis).
- brachyura* (Dies., 1850) Dies., 1858d, 257 (in Planorbis submarginatus; Ticini; P. nitidus, P. vortex).
- buccini mutabilis* (Fil., 1855) Dies., 1858d, 266 (in Buccinum (Nassa) mutabile; Genoa).
- chlorotica* (Dies., 1850) Dies., 1858d, 252-253 (syn. Cerc. (Eucerc.) chlorotica Dies.) (in Paludina vivipara).
- gibba* (Fil., 1854) Dies., 1858d, 257 (in Lymnaeus pereger; Turin).
- lincaris* (Lespès, 1857) Dies., 1858d, 258 (in Litorina litorea).
- macrocerca* (Fil., 1854) Dies., 1858d, 255 (larva of Dist. cygnoides Zed.) (in Cycas cornea; Turin); 1858e, 334 (syn. of Dist. cygnoides; [type of Gorgodera, 1899]).
- micracantha* Dies., 1858d, 259-260 (syn. Cerc. armata Fil., 1855b) (in Lymnaeus palustris, Triton punctatus).
- microcotyla* (Fil., 1854) Dies., 1858d, 253 (syn. C. pugnax La Valette) (in Paludina achatina, Lombardia; P. vivipara) (larva of Dist. tetracystis [type of Cystagora 1905]); 1858e, 348 (syn. of Dist. tetracystis).
- micrura* (Fil., 1857) Dies., 1858d, 258 (in Paludina vivipara; Turin). See globiporum type of Sphaerost.
- ornata* (La Valette, 1855) Dies., 1858d, 244, 255-256 (larva of Dist. clavigerum Rud. [type of Pleurogenes, 1899]) (in Planorbis corneus, Berlin; Hydrachna concharum, Heidelberg); 1858e, 338 (syn. of Dist. clavigerum).
- pachycerca* Dies., 1858d, 257-258 (syn. Cerc. brachyura Lespès) (in Trochus cinereus; Francogalliæ).

^a See p. 385, Addenda.

(ACANTHOCEPHALA)—Continued.

- planorbis carinati* (Fil., 1857) Dies., 1858d, 266 (in *Planorbis carinatus*; Turin).
subulo (Pag., 1857) Dies., 1858d, 256–257 (in *Paludina vivipara*; Heidelberg).
trigonocerca Dies., 1858d, 259 (syn. *Cerc. limacis* Moul.) (in *Limax cinereus*, L. (Arion) rufus; Geneva).
triloba (Fil., 1857) Dies., 1858d, 252 (in *Lymnæus stagnalis*, *Planorbis carinatus*).
vesiculifera (Dies., 1855) Dies., 1858d, 254–255 (syns. *Cerc. vesiculosa* Fil., C. (Xiphidiocerc.) *vesiculifera* Dies., C. *microcotyla* Fil.) (in *Paludina vivipara*, P. *achatinge*).
vesiculosa (Dies., 1850) Dies., 1858d, 254 (in *Paludina vivipara*; Regiomontii, Berlin, Heidelberg).
virgula (Fil., 1837) Dies., 1858d, 260 (larva of *Dist. maculosum* Rud.) (in *Valvata piscinalis*, *Paludina impura*).

ACANTHOCASMUS Looss, 1900d, Dec. 3, 603, *Acanthostomum* Looss, 1899 [not *Acanthostoma* Kriechbaumer, 1895, insect] renamed, hence type *spiniceps*; *χαμμάουαι*, den Rachen offen haben; 1901e, 595, 629, 634, 659; 1901f; 1902g; 1902m, 441, 780, 808, 838.—Braun, 1901b, 34, 35, 36; 1902b, 30.—Odhm., 1902, 23, 25, 37; 1902, 159.—Pratt, 1902a, 888, 894 (key).

- absconditus* Looss, 1901e, 631–632, fig. 8 (intest. of *Bagrus bayad*, B. *docmac*).
coronarius (Cobbold, 1861) Braun, 1901b, 35, 36.—Odhm., 1902, 25 (in alligator).
imbutiformis (Mol., 1859, partim) Looss, 1901e, 632–633, 634, fig. 9 (intest. of *Labrax lupus*, *Dentex vulgaris*; Egyptian coast and Trieste).—Odhm., 1902, 25.
præteritus Looss, 1901e, 633–634, fig. 10 (first half of intest. of *Labrax lupus*, *Chrysophrys aurata*, *Corvina nigra*; Trieste and Egyptian coast).
productus Odhm., 1902, 24, 25 (in Nilkrokodil; Sudan).
scyphocephalus (Braun, 1899) Braun, 1901b, 35, fig. 14.—Odhm., 1902, 25.
spiniceps (Looss, 1896) Looss, 1901e, May 4, 629–631, fig. 7 (intest. of *Bagrus bayad*, B. *docmac*).—Braun, 1901a, 35, 36.—Odhm., 1902, 25.
vicinus Odhm., 1902, 24–25 (in Nilkrokodil; Sudan).

ACANTHOCOTILE Par. & Perugia, 1890, 11, 13, for *Acanthocotyle*.

ACANTHOCOTYLE Mont., 1888a, 7, 10, 11, 13, 16, 20, 30, 34, 35, 36, 37, 42, 43, 52, 55, 56, 57, 58, 59, 60, 66, 67 (*Achantocotyle*), 87 (m. *lobianchi*), 97 (in “subf.” *Tristomidae*, key); 1890, 189, 190, 208, figs. 1–5, pl. 8: 1891, 104, 106, 107, 111, 116; 1892, Oct. 7, 180, 213 (g. of *Tristominæ*): 1899a, 75–120, pls. 1–3: 1905, 71, 72, 73, 74, 75.—Braun, 1890a, 411, 412, 488, 523, 526, 529 (diagnosis); 1891d, 422; 1893a, 889.—Gamb., 1896a, 73.—Goto, 1899a, 283.—Massa, 1906, 45, 48.—Pratt, 1900a, 646, 649 (key), 655, fig. 10, 659.—Scott, 1902, 300, 301.

1888: *Achantocotyle* Mont., 1888, 67, misprint.

1900: *Acanthocotile* Par. & Perugia, 1890, 11, 13.

1902: *Acanthocotyle* Scott, 1902, 301, for *Acanthocotyle*.

concinna Scott, 1902, 301, no host given.

elegans Mont., 1890, 191, fig. 3 (on *Raja clavata*; Naples); 1899, 76, 77, 78, 79, 80, 81, 82, 85, 87, 88, 91, 93, 97, 99, 100, 101, 106, 107, 108, 110, 113–115, pl. 1, figs. 7, 8, pl. 2, figs. 13, 17, 19, 23, 25b, 28, 29, 32, pl. 3, figs. 44, 45; 1891, 107; 1899, 108; 1905, 73, 74, 75.—Braun, 1890a, 529, 547, 551.—Scott, 1902, 301.

lobianchi Mont., 1888a, 7, 13, 15, 16, 19, 22, 23, 26, 29, 31, 34, 56, 87 (on *Raja clavata*); 1890, 190; 1891, 102, 104 (*lobianchii*), 107, 116, 120, 130, pl. 5, figs. 9–10, pl. 6, figs. 36–39; 1893, 20; 1899, 108.—Braun, 1890a, 529, 547 (Naples), 551.

lobianchii Mont., 1891, 104, for *lobianchi*.

lobianchoi Goto, 1899a, 285, for *lobianchi*.

lobiancoi Mont., 1899, 75 (for *lobianchi*), 76, 77, 78, 80, 81, 83, 84, 85, 87, 89, 91, 94, 97, 100, 101, 106, 107, 108, 111–113, 116, 117, pl. 1, figs. 1, 3, 4, 5, 6, 10, pl. 2, figs. 11, 15, 16, 18, 21, 22, 25, 26, 31, 33, pl. 3, figs. 34–43, 46, 47, 49–58; 1905, 72, 73, 74.—Scott, 1902, 300.

monticelli Mont., 1905, 74, for *monticellii*.

monticellii Scott, 1902, 300–302, pl. 13, figs. 31–33 (in *Raja clavata*; Aberdeen, Scotland); 1905, 117.—Mont., 1905, 74, 75 (*monticelli*), figs. 4–5.

ACANTHOCOTYLE—Continued.

oligoterus Mont., 1899, 76, 77, 78, 80, 81, 84, 85, 87, 91, 100, 101, 105, 106, 107, 108, 111, 115–117, pl. 1, figs. 2, 9, pl. 2, figs. 12, 14, 20, 24, 25c, 27, 29, pl. 3, figs. 48 (on *Raja clavata*; Naples); 1905, 73, 74, 75 (in *R. punctata*).—Goto, 1899a, 283.—Scott, 1902, 301.

verrilli Goto, 1899a, 283–286, pl. 21, figs. 25–26 (on a skate, *Raja*; Cape Cod).—Mont., 1905, 71–75.—Pratt, 1900a, 655, fig. 10, 657, 659 (key).—Scott, 1902, 302.—Staff., 1904, May 3, 482 (on *Raja radiata* Donovan; Canada).

ACANTHOCOTYLEA Dies., 1850a, 649, subtribe of Monocotylea.

ACANTHOCOTYLINÆ Mont., 1903, 335 (subf. of Tristomidæ).

ACANTHONCHOCOTYLE Cerf., 1899a, 347, 373, 402, 420, 436, 445, 446, 451, 455 [type by inclusion appendiculata].—Mont., 1903, 336 (syn. of Onchocotyle).

appendiculata (Kuhn, 1829) Cerf., 1899a, 374, 379, 382, 461–462, pl. 19, figs. 6, 14a (in *Scyllium catulus* Cuv.; Roscoff).—Type of Onchocotyle 1850.

canicula Cerf., 1899a, 374, 379, 382, 402, 462, pl. 19, figs. 5, 13, 14b.c. (syn. Onchocotyle appendiculata Kuhn of Stoss., 1887) (in *Scyllium canicula*).

ACANTHOPSOLUS Odhn., 1905, 328–331 (m. oculatus).

oculus (Levin., 1881) Odhn., 1905, 328–331, pl. 2, fig. 11 (in *Lycodes pallidus* in East Greenland; Cottus scorpius, west coast of Sweden).

ACANTHOSTOMUM Looss, 1899b, 575, 577–579 (tod. spiniceps), 578, [not Acanthostoma Kriechbaumer, 1895, insect], ἡ ἄκανθα, spine; 1900d, 603 (renamed Acanthochasmus); 1901e, 595.—Braun, 1901b, 34, 56; 1901i, 56.—Stiles, 1901, 189.

coronarium (Cobbold, 1861) Looss, 1899b, 578, 582.

spiniceps (Looss, 1896) Looss, 1899b, 578, 582.

ACANTHOCOTYLE Scott, 1902, 301, for Acanthocotyle.

ACCACELIUM Mont., 1893, 135 (contortum); subg. of Dist.—Raised to generic rank by Looss, 1899b, 631–632 (contortum as type); 1902, 839, 504.—Braun, 1901b, 27, 34, 37, 38.—Darr, 1902a, 698.—Luehe, 1900u, 487; 1901n, 481, 482–483, 485.—Odhn., 1905, 363.—Ofenheim, 1900, 183.—Pratt, 1902a, 889, 904 (key).

1893: Dist. (Accacelum) Mont., 1893, 135, q. v.

1894: Accacelum Zool. Record (1893) 1894, Vermes, 49.

calyptrocotyle (Mont., 1891) [Luehe, 1900u, 487].—To Orophocotyle in 1902.

contortum (Rud., 1819) Looss, 1899b, 632.—Darr, 1902a, 698.—Luehe, 1901n, 482, 483, 485.—Staff., 1904, 487 (Canada).

foliatum (Lint., 1898) Staff., 1904, 487 (Mola mola; Canada).

macrocotyle (Dies., 1858) Luehe, 1901n, 482.—Staff., 1904, 487 (Mola mola; Canada).

nigroflavum (Rud., 1819) Luehe, 1901n, 482, 483.—Looss, 1902, 639.—Staff., 1904, 487 (Mola mola; Canada).

[*pelagiæ* (Kœlliker, 1849), —, 1900.]

raynerianum (Nardo, 1827) Luehe, 1901n, 482, 483, 485.—Par., 1902, 6 (in *Luvarus imperialis*).

ACCACELUM Zool. Rec. (1893), 1894, Vermes, 49 (for Accacelum).

ACERCÆ Mont., 1888, 94 (group of Cerc. without tail).

ACHANTOCOTYLE Mont., 1888, 67 (for Acanthocotyle).

ACOTYLEA Dies., 1850a, 286, 293 (subtribe of Dicanocela), 287, 304 (tribe of Trematoda).—Brand., 1888a, 12.—Burm., 1856a, 250.—Goldb., 1855, 15, 16.—Mol., 1861, 191.—Mont., 1888, 83, 84; 1891, 111.—Tasch., 1879, 233.

ACOTYLOCEPHALA Dies., 1858e, 314, 374 (f. of Trematoda plectanophora).—Ben. & Hesse, 1864a, 119 (syn. of Gyrodactylidés).—Mont., 1888, 84.

ACRODACTYLA Staff., 1904, May 3, 491 (m. petalosa) [not Acrodactyla Hal., ante 1846, hymenopteron], ἄκρος, end; δᾶκτυλος, finger.

petalosa (Lander, 1902) Staff., 1904, May 3, 491 (m. Acipenser rubicundus Le S.; Canada); includes Dist. auriculatum Wedl. of Lint.

ACTINODACTYLELLA Haswell, 1893f, Sept., 153–158, pl. 16, corrigendum (m. blanchardi), Actinodactylus Haswell, 1893 [not Duchassaing, 1890], renamed; 1894a, 256; (18—), 589–590.—Pratt, 1900a, 646, 648 (key).—St.-Remy, 1898, 522, 531.

1893: Actinodactylus Haswell, 1893d, 477 [not Duchassaing, 1890] [type blanchardi].

1899: Actinodactynella Mont., 1899, 81, type haswelli=blanchardi.

ACTINODACTYLELLA—Continued.

blanchardi Haswell, 1893f, 153–158, pl. 16, corrigendum (Engæus fossor; Gippsland, Victoria, Australia).—Pratt, 1900a, 655, fig. 1, 657.—St.-Remy, 1898, 531–532, fig. 2 (on Eng. fos.; Australia) (syn. *Actinodactylus* sp.; Haswell).

ACTINODACTYLIDÆ Haswell.—St.-Remy, 1898, 522.

ACTINODACTYLUS Haswell, 1893d, 477 [not Duchassaing, 1890]; 1893f, 153–158, corrigendum, pl. 16, renamed *Actinodactylella* Haswell.—Mont., 1899, 116.

ACTINODACTYNELLA Mont., 1899, 81, 86, 116, 117, 118, 119, 122 (type *haswelli* Mont., 1898=*blanchardi* Haswell, 1893, see *Actinodactylella*.)

blanchardi Haswell, 1893, teste Mont., 1899, 122.

haswelli Mont. (1898), 1899, 122 (in *Engæus fossor*; Australia, Gippsland, Victoria).

ACTINODACTYNELLINÆ Mont., 1899, 118, 121.—Pratt, 1900a, 646, 647 (key) (apparently for *Actinodactylellinæ*), subf. of *Temnocephalidæ*.

ADENOASTER Looss, 1901l, Nov. 7, 620–621 (m. serialis); 1902m, 570, 583, 591, 601, 603, 609, 612, 615.—Pratt, 1902a, 890, 909 (key).

serialis Looss, 1901l, 620–621; 1902m, 545–548, pl. 26, figs. 71–74, 615, 875. pl. 26, figs. 71–74 (in *Thalassochelys corticata*; Alexandria, from Egyptian coast).

AGAMODISTOMA Rail., 1893a, 376 (for *Agamodistomum*, q. v.).

AGAMODISTOMUM Stoss., 1892, 4, 33–34 [collective group for immature forms, requires no type^a]; 1895, 33; 1895, 228–229; 1898, 58.—Mont., 1893, 154.—Stiles, 1898a, 28; 1904, 8, 11, 12, 13.—Stiles & Hass., 1898a, 82, 96; 1899, 117; 1900a, 559; 1902f, 360.

1892: *Distomulum* Brand., 1892b, Oct. 7, 510.

1893: *Agamodistoma* Rail., 1893a, 376.

anguis (Linst., 1885) Stoss., 1895, 229 (in *Anguis fragilis*).

capsulare (Dies., 1858) Stoss., 1892, 176 (in *Ardea cinerea*, *A. purpurea*, *Crex pratensis*, *Nycticorax griseus*, *Podiceps auratus*, *P. nigricollis*).

chinææ Ariola, 1899a, 8–10, pl. 5, fig. 7 (in *Chinæra monstrosa*; Genova, Italy); (1899) v. 10 (in 129–138); (—), 299.

cœlebs (Linst., 1875) Stoss., 1892, 176 (in *Fringilla cœlebs*; Ratzeburg).

gobii Stoss., 1898, 58–59 (encysted in *Gobius jozo*; Trieste).

martiranoi Stiles, 1903aa, 15 (in *Anopheles claviger*), based on Martirano, 1901d, 849–852, figs. 1–4 [see also Mart., 1901b, 1089–1091, figs. 1–4; 1901c, 274; 1902a, 73; 1902b, 358].

ophthalmobium (Dies., 1850) Stoss., 1892, 33 (in *Homo*).—Stiles, 1902s, 24, 29–34; 1903u, 223 (*ophthalmothium*); 1905cc, 54.—Ward, 1903, 866.

ophthalmothium Luehe in Stiles, 1903u, 223, for *ophthalmobium*.

pusillum (Braun, 1790) Stoss., 1892, 33 (in *Erinaceus europæus*; Greifswald; Rennes).

putorii (Mol., 1858) Stoss., 1892, 34 (in *Putorius communis*; Padova, Ratzeburg).

suis Stiles, 1898a, 22, 28, 29, 143, fig. 1 (in *Sus scrofa domestica*; Germany); *Dist. musculorum suis* Duncker, 1896, 279, renamed.—Kastenbaum, 1899, (214), fig. 33, 4.—[See also Braun, 1893a, 870.—Duncker, 1881, 23–25; 1881, 141; 1881, 154; 1884, 39–42; 1896, 279–282.—Leuck., 1881, 46.—Moulé, 1885, 60–62.—Schndmhl., 1896, 302.—Stiles & Hass., 1900a, 559–560, fig. 23; 1902f, 360; 1904, 22.]

valdeinflatum (Stoss., 1883) Stoss., 1898, 59 (in *Gobius jozo*; Trieste); “Rappresenta la larva dell’ *Echinostoma cesticillus* Molin.”—Barbagallo & Drago, 1903, 411 (in G. j.; Cantania).

viperæ (Linst., 1877) Stoss., 1895, 228 (in *Pelias berus*).

“ALAIRE”^b Blainv., 1824a, 518,^b see “*Alaria* Blainv.” of Dies., 1850a.—Leblond, 1837a, 518, 59, pl. 14, fig. 15 (teste Dies., 1850a, 374).

“ALARIA Blainv.” of Dies., 1850a, 331 (for “alaire” [q. v.] Blainv., 1824a, 518, see Duj., 1845a, 437). See also *Alaria* Schrank.

^a See p. 385.

^b “Je propose de rétablir ce genre pour quelques espèces de fascioles cylindriques, avec une assez longue queue, et qui ont des espèces d’ailes de chaque côté du corps; j’en ai décrit une trouvée dans le pancréas du *Simia maimon* de Linné, à l’art. ‘fasciole’ du Dictionn. des sciences nat.”

This name being French, has no status in nomenclature.

ALARIA Schrank, 1788, 52 (m. vulpis) [not Alaria Dunc., 1841, lepidopteron; Morr. Lyc., 1850, mollusk].—Abildg., 1790, 63 (syn. of Dist. vulpina).—Brand., 1888a, 8.—Braun, 1893a, 884, 894, 902.—Dies., 1850a, 307 (syn. of Hemist.).—Encycl. méth., Par., v. 2, 20.—Knoch, 1862, 30.—Lamouroux, 1822a, 194. See also genera for which alata Goeze is type.

vulpis Schrank, 1788, 52 (Planaria alata vel dubia Goeze, 1782a, 176–177, pl. 14, figs. 11–13, from Canis vulpes, renamed).—Brand., 1888a, 60 (syn. of Hemist. alatum).—Dies., 1850a, 308 (syn. of Hemist. alatum; includes also alata Goeze as syn.).—Lamouroux, 1822a, 194.—Rud., 1809a, 402 (syn. of Dist. alatum Zed.).

ALLEGREADIINÆ Engler, 1904, 188, for Allocreadiinae.

ALLOCREADIIDÆ Stoss., 1904, 199.

ALLOCREADIINÆ Looss, 1902m, 841.—Odh., 1905, 323, 326, 328.—Stoss., 1902, 578; 1903, 373.

ALLOCREADIUM Looss, 1900d, Dec. 3, 602 (Creadium Looss, 1899 [not Creadium and Creadion Vieill., 1816, bird], renamed, hence type isoporum: ἄλλος, another; 1901b, 199; 1902m, 760, 785, 839.—Braun, 1902b, 26, 147, 148.—Odh., 1901, 483–520; 1905, 328.—Pratt, 1902a, 888, 897 (key).—Stoss., 1901, 95 (7); 1902, 578; 1903, 373; 1904, 199.

album (Stoss., 1890) Stoss., 1901, 95 (7); 1904, 199 (type of Lepocreadium).

angusticollis (Hausmann, 1896) Odh., 1901, 517.—Stoss., 1901, 96 (S).

asymphyloporum Stoss., 1901, 96 (in Trutta trutta; Lake Plitvica, Croatia).

atomon (Rud., 1802) Odh., 1901, 506–513, 516, pl. 33, figs. 9, 10; 1905, 320 (type of Podocotyle).—Stoss., 1902, 582.

commune (Olss., 1876) Odh., 1901, 499–503, 508, 516, 517, pl. 33, fig. 6; 1905, 327.—Stoss., 1902, 582.

fasciatum (Rud., 1819) Odh., 1901, 485–490, 492, 496, 516, pl. 33, fig. 1; 1902, 160.

genu (Rud., 1819) Odh., 1901, 485, 496–499, 500, 501, 502, 517, pl. 33, figs. 3–5; 1905, 327.

isoporum (Looss, 1894) Looss, [1900d, 602;] 1902m, 785.—Kowal., 1902d, 27 (9).—Odh., 1901, 505, 506, 516; 1905, 327.—Staff., 1904, May 3, 493 (in Semonitulus bullaris Raf.; Canada).—Stoss., 1901, 93, 96 (in Gobius fluviatilis; Loitsch in Carniola).

labracis (Duj., 1845) Odh., 1901, 514–516, pl. 33, fig. 11; 1905, 327.

labri (Stoss., 1886) Odh., 1901, 490, 493–496, 516, pl. 33, fig. 2; 1902, 160.

obovatum (Mol., 1859) Stoss., 1901, 95–96 (7–8) (in Chrysophrys aurata; Trieste).

pegorchis Stoss., 1901, 94–95 (6–7), pl. 6, fig. 4 (Maena smaridis; Trieste); 1904, 199.

sinuatum (Rud., 1819) Odh., 1901, 490–492, 516; 1902, 160.

transversale (Rud., 1802) Odh., 1901, 505–506, 516; 1905, 327.

tumidulum (Rud., 1819) Odh., 1901, 503–505, 516, pl. 33, figs. 7–8.

umbrinae (Stoss., 1885) Odh., 1905, 327.

AMFISTOMIDI Sons., 1895, see Amphistomidae.

AMPHIBDELLA Chatin, 1874a, 11–16 (m. torpedinis); 1875, —.—Braun, 1890a, 412, 417, 444, 468, 484, 512, 519, 523, 542, 545 (diagnosis; m. torpedinis).—Maclaren, 1904, 583, 598, 599, 600.—Mont., 1889, 116; 1903, 336 (syn. of Tetraonchus).—Pratt, 1900a, 646, 654 (key). 657, fig. 47.—St.-Remy, 1898, 524.—Stoss., 1898, 17.

torpedinis Chatin, 1874a, 11–16, pl. 2 (IX), figs. 13–14 (in Torpedo marmorata; Mediterranean).—Brand., 1894a, 307.—Braun, 1890a, 418, 426, 444, 452, 545, 549, 552 (Genoa; Trieste).—Maclaren, 1904, 587.—Mont., 1888, 93, 110; 1889, 116 (belongs to Gyrodactylidae, Tetraonchus); 1890, 193–195 (on Torpedo narce, T. mar.); 1905, 79.—Par., 1894, 138, 578.—Par. & Perugia, 1890, 8; 1890, 363–367; 1890, Sept. 5, 335–336.—Pratt, 1900a, 657, fig. 47.—Stoss., 1898, 17–18 (on T. mar.; Trieste).

AMPHIBDELLIDÆ Carus, 1885a, 121 (contains Amphibdella Chatin).—Mont., 1888, 93; 1889, 116 (4) (belongs to Gyrodactylidae).

AMPHIBOTHRIUM Frey & Leuck., 1847, 147 (m. krøyeri)=Amphibothrium Leuck., 1847, see Braun, 1889a, 343).—Ben., 1858a, 1861a, 12.—Braun, 1890a, 518 (syn. of Udonella, 1855).—Dies., 1850a, 427 (syn. of Udonella Johnston).

krøyeri Leuck., 1847, 147–148, pl. 2, fig. 2 (on Caligus sp. parasitic on Gadus).

AMPHIBOTHRIUM—Continued.

kroyeri Dies., 1850a, 427 for *kroeyeri* (syn. of *Udonella caligorum* Johnston) (in *Caligorum corporis superficiei, frequens*, in *Caligo hippoglossi vulgaris*, April (Johnston); *C. triglae* Gurnardi, June (Hyndman); *C. curto* (Kroyer).—Ben., 1858a, 1861a, 13 (syn. of *Ud. cal.* Johnst.).—Tasch., 1878, 573 (syn. of *U. cal.* F. & L.).

AMPHIOSTOMA Rud., 1819a, 88 for Amphistoma.

AMPHISTOMA *ab* Rud., 1801a, 50–51, 54 (*Strigea* Abildg., 1790, renamed, hence type *strigis*=*macrocephalum*); 1802b, 92–93; 1809a, 5, 21, 37, 340, pl. 5, figs. 4–7 [a, capite discreto, 6 species in birds; b, capite continuo, 3 species in birds, amphibia, and mammals]; 1819a, 87, 351–352, 589.—Baillet, 1866b, 99, 105–106.—Bellingham, 1844a, 338.—Ben. & Hesse, 1864, 61.—Blainv., 1828a, 582–583.—E. Bl., 1847a, 309–310.—R. Bl., 1886m, 841; 1888a, 543, 632, 636; 1895, 730.—Brand., 1888a, 9, 10, 13; 1891d, 12, 20.—Braun, 1883a, 69, 70; 1889i, 437; 1890a, 514, 515; 1892a, 568, 635, 650, 667, 681, 696, 698, 699, 707, 709, 710, 715, 720, 722, 738; 1892f, 49, 50, 51; 1893a, 851, 852, 872, 879, 880, 883, 884, 886, 890, 892, 893, 895, 902, 903, 904, 905, 906, 918; 1893f, 383; 1894a, 1147; 1895b, 134, 136, 137; 1898a, 1583; 1901b, 20, 55, 56 (sp. Bellingham).—Bremser, 1824, 132–133.—Burckhardt, 1891a, 63.—Burm., 1837a, 530; 1856a, 250.—Carus, 1863, 479.—Cobbold, 1875n, Nov., 817–821.—Cohn, 1903, in 35–42.—Crep., 1825a, 35–38; 1837a, 309, 313; 1839a, 286; 1847c, 30–35, pl. 2, figs. 1–5 (2 sp. in Zebu).—Cuv., 1817, 41.—Dav., 1877a, lxxx.—Deslongchamps, 1824c, 53–57.—Dies., 1836d, 238–246 (monograph); 1839a; 1850a, 288, 307 (sub Hemist.), 312 (sub Holost.), 317 (sub *Codonocephalus*), 318 (sub *Diplodiscus*), 319 (sub *Monost.*), 400–407, 573 (sub *Tetrabothriorchynchus*); 1858e, 312, 322 (of Bellingham, 1844a, 339) (syn. of *Holost. falconum*), 357–358.—Duj., 1845a, 327–331.—Eichwald, 1829a, 248.—Fil., 1837a, 334, 336.—Fischer, 1840a, 156.—Fischder., 1901a, 367–375 (revision with several new genera); 1902a, 6, 7, 10 (*Strigea*) (see *Paramphist.*, nomenclature; syn. of *Paramphist.*); 1903h, 487, (*Strigea* Abildg., renamed), 488, 489, 490 (type *strigis*=*macrocephalum*) (of mammals, revision).—Gamble, 1896a, 73.—Goldb., 1855a, 17.—Goubaux, 1863a, 882–884.—Gurlt, 1831a, 369.—Hahn & Lefevre, 1884, 806.—L'Herminier, 1826, 10.—Hoyle, 1890, 535, 539.—Jackson, 1888, 642, 644, 654.—Joy, 1835a, 504.—Kath., 1894a, 130.—Kholodk., 1898a, 33; 1899a, 153.—Kitt, 1885a, 148.—Lamarck, 1816b, 187–188.—Lamoureux, 1822a, 297.—Leblond, 1836f, 4.—Lejtenyi, 1881a, 3, 9, 11.—Leuck., 1863, 451, 459, 462, 463, 524.—Looss, 1892a, 126; 1894a, 10, 20, 178, 249; 1896b, 173–177; 1901, 622; 1902m, 430, 438, 439, 638, 676, 746, 780 (*Paramphist.*).—Moniez, 1896, 87.—Mont., 1888a, 7, 12, 30, 46, 47, 52, 56, 63, 64, 71, 83 (*Amphist.*), 84, 90, 91, 103; 1892, 38; 1892, Oct. 7, 196, 197, 214; 1892, 700, 710; 1893, 27, 108, 208.—Moul., 1856a, 11, 12, 15.—Neumann, 1892, 345.—Nitzsch, 1819, 398–401.—Nord., 1840, 544, 614, 625–627, 628–629.—Olfers, 1816, 22, 47.—Otto, 1896, 78 pp., 30 figs.; 1896, 85–141, 275–296, figs. 1–30 (anat., histology).—Pag., 1857, 52.—Poir., 1883, 79.—Pratt, 1900a, 645.—Rafinesque, 1815, 151 (genus of *Filaridia*).—Rail., 1892, July 15, 633–634 (of domestic animals in Tonkin); 1893, April 15, 245–246; 1893a, 376 (*Strigea*).—Rousseau, 1833–34, 149–150.—Schndmhl., 1896, 295, 303.—Schneider, 1866, 334.—Shiple, 1905, 7 (syn. of *Strigea*), 8 (type *Holost. macrocephalum*).—Shiple & Hornell, 1904, 80.—Sons., 1895, 181, 183, 184, 185, 186.—Stiles, 1898a, 24, 64.—Tasch., 1879, 232, 233, 256.—Vaullegeard, 1899, 53.—Vogt, 1878, 9, 10.—Wallenstedt, 1847, 7.—Ward, 1895, 256, 338 (sp. Cobb. in stomach of *Equus caballus*).—Westrumb, 1821, 46; 1823, 390–398, pl. 5, figs. 1–2.

1803: *Amphystoma* Rud., 1803a, 29 (misprint).

1819: *Amphistomum* Nitzsch, 1819, 397–401 (emendation).—Crep., 1825, 35; 1837, 309, 313.

1819: *Amphiostruma* Rud., 1819a, 88 (misprint).

1822: *Amphistome* Lamoureux, 1822a, 297 (French word or misprint).

^a Rud. deliberately renamed a previously validly named genus, namely *Strigea* Abildgaard, 1790, referring clearly to this fact both in 1801a, 50–51, and 1802b, 92. He makes but one combination (*Amphist. subclavatum*), but since *Amphist.* is clearly a new name proposed for an older one (*Strigea*), which Rud. changed on the alleged ground that it was inappropriate, *Amphist.* should be suppressed in favor of *Strigea* and take the same species as type.

^b Since 1816 written almost indiscriminately *Amphistoma* or *Amphistomum*.

AMPHISTOMA—Continued.

- 1888: *Amphistomum* Mont., 1888, 83 (misprint).
anatis Rud., 1819a, 793, for *anatis querquedula* 1819a, 92.
anatis querquedula Rud., 1819a, 92 (in *Anas querquedula*; C. E. V.).—Dies., 1836d, 253.—Westrumb, 1823, 398.
anatis tadornæ (Viborg, 1795) Rud., 1809a, 352; 1814a, 100 (= *A. isostomum*).—Dies., 1850a, 313 (syn. of *Holost. erraticum* Duj.).
asperum Dies., 1838a, 189 (in *Tapirus americanus*); 1839a, 236, pl. 20, figs. 14–16 (in *Tap. amer.*; South America [Matogrosso and Cachoeira do Bananeira]); 1850a, 402.—Braun, 1892a, 580; 1893a, 594, 905; 1893d, 466.—Cobbald, 1875n, 819; 1879b, 402.—Duj., 1845a, 334.—Fischder., 1902a, 39 (syn. of *Cladorchis asper*).—Nord., 1840, 629.—Sons., 1895, 184.
attenuatum Dies., 1836d, 238, 252, pl. 24, figs. 9–12 (in *Salmo paccu*; Caicara); 1850a, 406–407 (in *Miletes bidens*; Brazil).—Cobbald, 1860a, 54 (in *M. bidens*; Brazil).—Duj., 1845a, 341 (in *Salmo paccu*; Brazil).—MacCallum, 1905, 668, 677 (in *Salmo*).—Nord., 1840, 629.
bothriophoron Braun, 1892f, 49, 50, 51 (in *Bos indicus*; Madagascar); 1893a, 738; 1893b, 185; 1893f, 383; 1901b, 20.—Fischder., 1903h, 538 (to *Paramphist.*).—Otto, R., 1896, 101–103, fig. 5.—Sons., 1895, 184.—Spengel, 1892.
bothriophorum Stiles, 1898a, 24, 67, fig. 56 (read *bothriophoron*).
brachycalium Cohn, 1903, 39 (host not given) (? lapsus).
cervi (Schrank, 1790) Stiles, 1898a, 24, 64, 65, 66, 67, 139, 140, 141, 142, figs. 49–55 (*Bos taurus*).—Fischder., 1901a, 368 (type of *Paramphist.*).—Stiles & Hass., 1900a, 611, fig. 29; 1902f, 360; 1904c, 22.
chelonæ imbricatæ Dies., 1858e, 358 (based on Bellingham, 1844a, 340, in *Chelonia imbricata*; Ireland).—Braun, M., 1893a, 905.
chordale Burckhardt, 1891a, 21 Apr., 62–64 (*Protopterus annectens*); 1892a, 344–345 (a *Tetracotyle*, *Holostomidæ*, teste Brandes).
clavatum Steenstrup, 1842, 59 (in *Rana temporaria*); 1842, 109–110 [for *subclavatum*?].—Sieb., 1843, 1x.
clavigerum Zed., 1803a, 199 (Fest. strigis Schrank, 1788, renamed) (in *Strix*).—Rud., 1809a, 341 (syn. of *A. macrocephalum*).
collinsi Sons., 1895, 182 (for *collinsii*), 187 to (*Pseudodiscus*).—Fischder., 1902a, 48 (in *Equus caballus*; India).
collinsii Cobbald, 1875l, 741 (in *Equus caballus*); 1875n, 818, 819; 1879b, 357, 398; 1883x, 515.—Fischder., 1903h, 489 (to *Pseudodiscus* by Sons.).—Huber, 1896a, 580 (India).—Sons., 1895, 182, fig. 2.—Theobald, 1900, 51.
collinsii var. *stanleyi* Cobbald, 1879b, 357 for *stanleyii* 1875 (in *Equus*).—Fischder., 1902a, 48.—Piana & Stazzi, 1900, 519 [= *A. hawkesi* Cobbald].—Sons., 1895, 182.
conicum (Zed., 1803) Rud., 1809a, 349–352 (*Bos taurus*, Greifswald; *Cervus elaphus*), 356; 1819a, 91 (*Ovis aries*, *Cervus dama*), 360, 577, 589, 793.—Anacker, 1892c, 94.—Bailliet, 1866b, 90, 106.—Bénion, 1874a, 628.—Bettendorf, 1897a, 7, 38; 1897, 311, 342.—E. Bl., 1847a, 310–316.—R. Bl., 1886, 295; 1888a, 584, 585.—Blumberg, 1871a, 40 pp., 1 pl. (anat.); —, 496–499; 1872, v. 33, 190–191; —, v. 8, 454.—Brand., 1891d, 7, 12, 13, 14, 15, 18, 20; 1898a, 222 (30).—Braun, 1892, 49, 50; 1892a, 576, 584, 587, 589, 591, 593, 595, 596, 597, 601, 603, 607, 608, 609, 613, 614, 615, 621, 622, 628, 632, 638, 640, 641, 642, 645, 646, 648, 654, 660, 661, 662, 664, 666, 667, 669, 671, 675, 676, 677, 681, 682, 683, 685, 688, 692, 693, 695, 703, 705, 711, 712, 713, 717, 718, 719, 724, 729, 730, 731, 733, 738, 739, 745, 762, 766; 1893a, 874, 879, 881, 905; 1893b, 186; 1893d, 466.—Cobb, 1891b, 614–615, 1 fig.—Cobbald, 1858b, 159; 1859, 51; 1875n, 818; 1879b, 331; 1884g, 976.—Conyngham, 1904, Sept. 17, 663.—Crep., 1837a, 311, 313, 315, 317, 321, 322, 323, 327; 1839a, 256; 1841, 80; 1847, 30.—Darr, 1902, 688.—Daubenton, —, 250, pl. 16, fig. 3 (*Bos taurus*).—Dav., 1877a, lxxx, 234, 235.—Dies., 1835, 246; 1836d, 235, 239, 240, 243, 244, 245, 246–248, pl. 23, figs. 1–4 (*Bos taurus* dom., *Ovis aries*, *Cervus elaphus*, *Cervus capreolus*, *Cervus dama*, *Cervus campestris*, *Cervus dichotomus*, *Cervus nambi*, *Cervus rufus*, and *Cervus simplicicornis*; Brazil); 1850a, 401 (in *Bos taurus indicus*, Berlin; *B. urus*, Vilna; *Capra hircus* var.; *Antilope dorcas*, Berlin; *Cervus capreolus*; *C. alces*) (syns.: *Fasc. hepatica* Mueller; *F. cervi* Schrank; *F. elaphi* Gmelin; *Festuc. cervi* Zed., *Monost. conicum* Zed.); 1850a, 401.—Duj., 1845a, 331, 332–333.—Eichw., 1829a, 248.—Falk, —, 6–7.—Fischer,

AMPHISTOMA—Continued.

- 1840, 157; 1883a, 20.—Fischder., 1901, 368, 375; 1902a, 11 (syn. of *Paramphist. cervi*), 13 (syn. of *P. liorchis*), 41, 50 (syn. of *Balanorchis anastrophus*); 1903h, 485 (in *Bos taurus*; Koenigsberg i. Pr.), 504–505 (syn. of *P. cervi*), 506, 508 (of Dies., 1835, 247, in *Cervus dichotomus* in Brazil as syn. of *Bal. anast.*), 508 (of Dies., 1835, 247, in *Cervus simplicicornis*, *C. campestris*, *C. mexicanus*, *C. rufus*, *C. dichotomus*, *C. namby* in Brazil as syn. of *P. liorchis*), 509 (of Gurlt, 1831, 369 in *Bos taurus indicus* as syn. of *P. dicranocœlium*), 515 (of Dies., 1835, 247, in South American *Cervus simplicicornis*, *campestris*, *mexicanus*, *rufus*, *dichotomus*, *namby*, as syn. of *P. liorchis*), 528 (in *B. tau. ind.*, as syn. of *P. dicranocœlium*), 535 (in *Antelope dorcas* as syn. of *P. microbothrium*), 584 (syn. of *Gastrothylax mancupatus*); 1904, 459.—Giard & Billet, 1892a, 615.—Giebel, 1857, 266.—Gronkowski, 1902a, 511, 514, 515, 517–518, 519, 520, 523, 529–531, 532, 533, fig. A (4, 7, 8, 10–11, 12, 13, 16, 22–24, 25, 26, pl. 13, figs. 2, 6, 7).—Gurlt, 1831, 156, 369–370, pl. 8, figs. 25–28.—Janson, 1893c, 261; 1897a, 103.—Kastenbaum, 1899 (244), fig. 33, 6.—Kath., 1894a, 131, 143.—Kerbert, 1881a, 548, 551.—Kitt, 1885a, 148.—Lamarck, 1816b, 189.—Lamoureux, 1822a, 297.—Laurer, J. F., 1830a, 20 pp., 1 pl.; 1830, 3, 4, figs. 1–14.—Lejtenyi, 1881a, 3, 5, 6, 7, 8, 11, 16, 18, 20.—R. Leuck., 1863, 479, fig. 157; 1876, 869.—Linst., 1883, 310.—Looss, 1885b, 6, 17; 1894a, 124, 142, 146, 206, 237; 1894d, 17, 22, 24; 1896b, 5, 23, 31, 32–33, 170, 173, 176, 178, 185–191, pl. 12, figs. 125–134 (syn. *Fest. cervi*) (in *Physa alexandrina*; *P. micropleura*; buffles; Egypt); 1898a, 459; 1902m, 438, 444 (*Cerc. pigmentata* Sons.), 638.—Macé, 1882, 9, 30, 80, 81, 85.—Mégnin, 1882, 456.—Mingazzini, 1899a, 10 pp., figs. 1–5.—Miram, 1840, 157.—Moul., 1856a, 18.—Mueh., 1898, 20.—Neumann, 1888, 336, fig. 124; 1892, 353, fig. 140; 1892, 363, fig. 140.—Nitzsch, 1819, 398 (syn. *Monost. conicum* Zed.).—Nord., 1832a, 38, 92, 93, 97; 1840, 547; 1840, 627 (syns. *Fasc. elaphi* Gmelin; *Monost. conicum* Zed.).—Olfers, 1816, 47.—Ostertag, 1899, 412.—Otto, 1896, 97–101, fig. 4, figs. 10, 13.—Poir., 1885, 1, 3, 101, 102.—Rail., 1886, 301, fig. 195; 1890, 143; 1892, 633; 1893a, 376–377 (synonymy), fig. 249.—Rail. & Gomy, 1899, 348, 349.—Rubridge, 1892, 61.—Schmalz, 1831, 24.—Schneider, 1866, pl. 28, fig. 4.—Siebold, 1835, 56, 57, 58, 59, 62, 65.—Slawikowski, 1819, 52.—Sons., 1895, 181, 184, 185; 1896, 314; 1897, 252.—Staff., 1905, April 11, 693 (syn. of *Paramphist. cervi* Zed.).—Stiles, 1898a, 64.—Tasch., 1878, 176.—Trollip, 1893, 6 (22), 2, Nov., 424–425 (in ox).—Verrill, 1870, 176, 177, 220.—Veterinarius, v. 21, 328.—Villot, 1878, 16.—Volz, 1899, 232.—Ward, 1895, 256 (syns. *Fest. cervi* Zed.; *Fasc. elaphi* Gmelin; *Monost. conicum* Zed.); 1895, 332 (in *Bos taurus*), 335 (in *Ovis aries*), 338 (in *Equus caballus*).—Westrumb, 1823, 396, 397.—Zeit. f. Fleisch-u. Milchhyg., July, 1894, 200.—Ziegler, 1883, 546.—Zuern, 1882, 220, 221, pl. 4, fig. 10.—Also reported for *Capreolus caprea*, *Cariacus paludosus*.
- cornu* (Zed., 1800) Rud., 1809a, 346–347 (*Ardea cinerea*; Europe); 1819a, 85, 345, 793 (to *Monost.*).—Brand., 1888a, 10.—Dies., 1850a, 327 (to *Monost.*).—Duj., 1845a, 349 (to *Monost.*).—Lamarck, 1816b, 189.—Nord., 1840, 626–627.—Olfers, 1816, 48.
- cornu* (Nitzsch, 1819) Rud., 1819a, 89–90, 357, 793 (*Ardea cinerea*, A. garzetta; Europe) [nec (Zed., 1800) Rud., 1809].—Baird, 1853a, 47.—Bellingham, 1844, 339.—Dies., 1850a, 315 (to *Holost.*); 1858e, 321.—Stoss., 1898, 22 (to *Holost.*).—Westrumb, 1823, 394–395.
- cornu* Dies., 1839a, 235, pl. 20, figs. 12–13 (*Dorcas n. sp.* = *Cataphractus vacu* Natt. Cat.: Forte do Rio Branco, Brazil) [nec (Zed., 1800) Rud., 1809a; nec (Nitzsch 1819) Rud., 1819]; 1850a, 402.—Braun, 1893a, 905.—Cobbold, 1860a, 53 (re-named *nattereri*).—Duj., 1845a, 340.—MacCallum, 1905, 668.
- cornutum* Rud., 1808a, xxv, pl. 4, figs. 4–7; 1809a, 343–344 (in *Charadrius pluvialis*, intestine; Greifswald); 1819a, 90, 589, 793.—Dies., 1850a, 317 (to *Holost.*).—Duj., 1845a, 372 (to *Holost.*).—Lamarck, 1816, 188.—Lamoureux, 1822a, 297.—Nord., 1840, 626.—Olfers, 1816, 47.—Risso, 1826, 262.—Westrumb, 1823, 395.
- rumeniferum* Crep., 1847, 30–34, pl. 2, figs. 1–5 (in *Bos taurus indicus*, rumen).—Baillet, 1866b, 106.—Brand., 1891d, 17; 1898a, 196, 216 (4, 24).—Braun, 1892a, 576, 738, 739; 1892, 49, 51.—Cobbold, 1875m, 819; 1879b, 332.—Dav., 1877a., lxxx.—Dies., 1850a, 402–403.—Fischder., 1902a, 27 (to *Gastrothylax*); 1903h, 488, 557 (type of *Gastrothylax*), 558, 559, 575; 1904, 459.—Giard & Billet, 1892a, 615.—Neumann, 1892, 363.—Poir., 1883, 76 (to *Gastrothylax*).—Sons., 1895, 185; 1896, 298.—Stiles, 1898a, 67.—Verrill, 1870, 177, 220.—Ward, 1895, 332 (in *Bos taurus*).

AMPHISTOMA—Continued.

- crumigerum* Fischder., 1903h, 563 (syn. of *Gastrothylax compressus* Brand.).
- cylindricum* Dies., 1836d, 249, pl. 23, figs. 13–15 (in *Cataphractus murica*; at Villa Maria, Brazil); 1850a, 405 (in *Doras murica*; Brazil).—Braun, 1893a, 905.—Duj., 1845a, 340.—MacCallum, 1905, 668, 672, 673 (in *Callichthys*).—Nord., 1840, 628.
- denticulatum* Rud., 1819a, 90, 358 (in *Alcedo ispida*; Mus. Vien.), 793.—Dies., 1850a, 311 (to Hemist.).—Duj., 1845a, 372 (to Holost.).—Lamoureux, 1822a, 297.—Villot, 1898, 538.—Westrumb, 1823, 395–396.
- dolichocotyle* Cohn, 1903, May 30, 37–39, fig. 3 (in *Herpetodryas fuscus*); 1904, 242.—Type of *Catadiscus*, 1904.
- elongatum* (Poir., 1883) Fischder., 1903h, 577 (to *Gastrothylax*) (in *Anoa depressicornis*; Berlin Zool. Garden).
- emarginatum* Dies., 1839a, 237 (in *Callithrix noctivaga*; at Matogrosso, Brazil); 1850a, 407 (in *Cebus trivirgatus*), ex Dies., 1839.—Braun, 1893a, 905; 1901e, 311.—Cobbold, 1879b, 289.—Duj., 1845a, 331 (ex Dies., 1839).—Fischder., 1902a, 49 (in *Nictipithecus trivirgatus*; Brazil).—Nord., 1840, 629.
- emberizæ citrinellæ* Dies., 1836d, 253.
- erraticum* Rud., 1808a, 458 (nomen nudum); 1809a, 344–345 (in *Larus septentrionalis*; Greifswald, Europe); 1819a, 89 (in *Scolopax gallinago*, Greifswald; *Colymbus arcticus*, *Scolopax rusticola*), 356, 793.—Baird, 1853a, 47 (to Holost.).—Crep., 1839, 288.—Dies., 1850a, 313 (to Holost.).—Duj., 1845a, 373 (to Holost.).—Erc., 1881e, 86 (eggs); 1882a, 322.—Lamarck, 1816b, 189.—Lamoureux, 1822a, 297.—Nord., 1840, 626.—Olfers, 1816, 47.—Westrumb, 1823, 393–394.
- excavatum* (Rud., 1803) Nitzsch, 1819, 399 (to Holost.).
- explanatum* Crep., 1847, 34–35 (in *Bos taurus indicus*, liver and gall bladder; Berlin).—Baillet, 1866b, 106.—Braun, 1892a, 738; 1893a, 875, 905; 1893d, 467 (in *Bos taurus indicus*).—Cobbold, 1875n, 819; 1879b, 332.—Dav., 1877a, lxxx.—Dies., 1850a, 404–405 (Berlin).—Fischder., 1902a, 34 (in *Bos taurus ind.*; Calcutta); 1904, 454, 459.—Giard, & Billet 1892a, 615.—Gomy, 1897a, 377.—Rail, & Gomy, 1897, 2 July, 610–613 (in cattle; Cochin China); 1897, 1 Aug., 474–475; 1899, 347, 349.—Sons., 1895, 184.—Stiles, 1898a, 24, 67, 140.—Verrill, 1870, 177.—Veterinarius, v. 21, 328.—Ward, 1895, 332 (in *Bos taurus*).
- fabaceum* Dies., 1838, 189 (in *Manatus australis*); 1839a, 236, pl. 20, figs. 19–23 (in *Manatus exunguis*; Borba and Forte do Rio Branco, Brazil); 1850a, 403–404 (in *Man. exung.*; Brazil).—Braun, 1893a, 905.—Cobbold, 1879b, 429.—Duj., 1845a, 334.—Fischder., 1901, 374 (type of *Chiorchis n. g.*); 1902a, 44, (to *Chiorchis*); 1903h, 621, 622 (in *Manatus latirostris*; North America).—Leidy, 1891a, 413–414 (in *Manatus latirostris*).—Nord., 1840, 629.—Stedman, 1889, v. 11, 85–101, pls. 1–2.
- falconis palumbæ* Baird, 1853a, 47 (syn. of Holost. *macrocephalum*).
- falconis palumbarii* Rud., 1819a, 88 (syn. of *A. macrocephalum*), 793.—Dies., 1850a, 309 (syn. of Hemist. *spathula*).
- falconis palumbi* (Viborg, 1795) Rud., 1809a, 352, sp. inq.
- falconis peregrini* Rud., 1819a, 92, 362, sp. dub. (*Falco peregrinus*; Berlin), 793.—Dies., 1836d, 253.—Westrumb, 1823, 397.
- ferrum-equinum* Dies., 1836d, 238, 250, pl. 23, figs. 16–18 (*Cataphractus murica* at Cuyaba and *C. corome* at Cuyaba and Matogrosso); 1850a, 405 (*Doras murica*, *D. costatus*).—Braun, 1893a, 905.—Duj., 1845a, 340–341.—MacCallum, 1905, 668.—Nord., 1840, 629.
- giganteum* Dies., 1836d, 238, 239, 240, 243, 244, 245, 248, pl. 22, figs. 5–6 (*Dicotyles albirostris* at Nas Frechas and Caicara, and *D. torquatus* at Matogrosso); 1850a, 403.—Brand., 1891d, 17.—Braun, 1892a, 578, 601; 1893a, 874, 905; 1893d, 466 (in *Dic. labiatus*; *D. torq.*).—Cobbold, 1875n, 819; 1879b, 404.—Crep., 1841, 80 (in *Dic. lab.*, *D. torq.*).—Duj., 1845a, 333–334.—Fischder., 1901, 373; 1902a, 40 (e. p. syn. of *Cladorchis* (*Taxorchis*) *schistocotyle*).—Moul., 1856a, 19.—Nord., 1840, 547, 628.—Sons., 1895, 184.
- gigantocotyle* Brand., in Otto, 1896, 16 Apr., 103–105, figs. 6–7 (in *Hippopotamus*).—Fischder., 1902a, 9, 34 (in *Hip. amphibius*; Africa); 1903h, 495, 496.
- gracile* Rud., 1819a, 89, 355 (*Mergus merganser* and *M. albellus*), 793.—Bellingham, 1844, 339.—Dies., 1850a, 315 (to Holost.); 1858e, 321.—Duj., 1845a, 578 (to Holost.).—Lamoureux, 1822a, 297.—Westrumb, 1823, 393.

AMPHISTOMA—Continued.

grande Dies., 1839a, 237, pl. 20, figs. 25–27 (in *Chelys*, *Phrynos*, *Peltocephalus*, *Podocnemis*, *Rhinemys*; South America); 1850a, 406 (in *Chelys fimbriata*, *Phrynos geoffroanus*, *P. miliusii*, *P. gibbus*, *Peltocephalus dumerilianus*, *Podocnemis erythrocephala*, *P. expansa*, *P. tracaxa*, *Rhinemys nasuta*; Brazil).—Brand., 1891d, 17.—Braun, 1892a, 586; 1893a, 879, 905; 1899b, 715, 719; 1901b, 55.—Crep., 1844a, 114.—Duj., 1845a, 336.—Leidy, 1888, 127.—Looss, 1902m, 430, 437, 440.—Mont., 1892, 715; 1896, 165.—Nord., 1840, 629.

hawkesi Sons., 1895, 182; 1895, 187, fig. (to *Pseudodiscus*); 1896, 310.

hawkesi Braun, 1893d, 466, for *hawkesii* Cobbold.

hawkesii Cobbold, 1875n, 818, 819 (in *Elephas indicus*; India); 1877, 234; 1879b, 393, 396, 399; 1882, 238–240, fig. 8; 1883x, 515.—Braun, 1893a, 874, 905; 1893d, 466 (hawkesi).—Fischder., 1902a, 48 (hawkesi) (in *E. indicus*, India); 1903h, 489 (to *Pseudodiscus* by Sons., 1895).—Galli-Valerio, 1901c, 364 (elephant).—Huber, 1896a, 579–580 (elephant).—Looss, 1902m, 439 (hawkesi).—Méginn, 1882, 455.—Piana & Stazzi, 1900, 511, 519–525, 529, figs. 12–14 (hawkesi); 1901, 416.

hepaticum Betegh in Gomy, 1898, 328–329 [*Veterinarius*, v. 21 (11), June 1]; [Gomy, 1897, Aug. 21, 401].—Rail & Gomy, 1899, 348.—Refers to “amphistome hépatique” = *A. explanatum*.

hirudo Dies., 1836d, 238, 249, pl. 23, figs. 10–12 (*Palamedea cornuta*; Engenho do Cap Gama, Brazil); 1850a, 407.—Braun, 1893a, 874, 905.—Duj., 1845a, 355.—Nord., 1840, 628.

hominis Lewis & McConnell, 1876a, 182–186, 1 text fig., pl. 3, figs. 1–3 (Homo; Calcutta, India).—Anders, 1903, 1245.—Bl., 1888a, 632–636, figs. 327–329; 1895, 744; 1900, 488.—Braun, 1883, 69; 1892a, 663; 1893a, 874, 905; 1895, 137–138, fig. 52; 1903, 146 (to *Gastrodiscus*).—Cobbold, 1879, 36–38, fig. 6; 1883x, 515.—Dav., 1877a, cxxxii.—Dunglison, 1893, 50, 533.—Fischder., 1901, 374; 1902a, 9, 46 (to *Gastrodiscus*); 1903h, 496.—Gamb., 1896, 63.—Giles, 1890, 125.—Hackley, 1886, 519.—Huber, 1896, 579–580.—Ijima, 1889, 157.—Jamison, 1897a, 74.—Kholod., 1898, 33, pl. 11, figs. 26–27; 1899a, 153.—Looss, 1902, 746; 1905, 110 (to *Gastrodiscus*).—Manson, 1901, 541, 543; 1903, 3, ed., 663, fig. 106.—Mon., 1896, 86, 87–89, figs. 17–18.—Mosler & Peiper, 1894, 185–186.—Schneidemuehl, 1896, 303.—Simon, 1897, 209; 1897, 223–224.—Sons., 1895, 181, 183; 1895, 187, fig. 6 (to *Gastrodiscus*); 1896, 310.—Stiles, 1904, 46 (to *Gastrodiscus*).—*Veterinarian*, Lond., 1877, v. 50, 82.—Vogt, 1878, 10.—Ward, 1895, 327 (in Homo); 1903, 865 (to *Gastrodiscus*).

isostomum Rud., 1814a, 100 (*Strigea candida* and *Amphist. anatis tadornæ*, renamed; in *Anas tadorna*; Copenhagen); 1819a, 89, 355, 793.—Bellingham, 1844a, 339.—Duj., 1845a, 377 (to Holost.).—Dies., 1850a, 313 (syn. of *Holost. erraticum*); 1858e, 320.—Lamouroux, 1822a, 297.—Olfers, 1816, 48.—Westrumb, 1823, 393.

konikum Schneidemuehl, 1896, 303, for *conicum*.

lari glauci Rud., 1819a, 92 (in *Larus glaucus*; Cat. Ent. Vien.), 793.—Dies., 1836d, 253; 1850a, 310 (syn. of *Hemist. spathaceum*).

loliginis delle Chiaje, 1841a, 140 (sub *Amphystoma*).—Par., 1894.

longicolle Rud., 1819a, 87–88, 92, 352–353 (*Ardea alba*, *A. stellaris*, *Larus ridibundus*, and *L. atricilla*; Mus. Vienn.), 793.—Baird, 1853a, 48 (to Holost.).—Bellingham, 1844, 338.—de Blainv., 1828, 583.—Bremser, 1824, 132; 1824c, pl. 8, figs. 15–16.—Dies., 1850a, 316 (to Holost.); 1858e, 321.—Fischer, 1840, 157.—Lamouroux, 1822a, 297.—Stoss., 1898, 21.—Westrumb, 1823, 390–391.

lunatum Dies., 1836d, 238, 240, 250–251, pl. 23, figs. 21–22 (*Cervus dichotomus*, *Anas melanotus*, *Anas ipecutiri*, *Himantopus wilsonii*; Caicara); 1850a, 405–406 (“*Cervus dichotomus*, nisi lapsus calami;” other hosts as in 1836d).—Braun, 1892a, 570; 1893a, 874, 905.—Crep., 1839, 286.—Duj., 1845a, 335–336.—Fischder., 1902a, 53–54 in *Cervus dichotomus*?, *Anas ipecuteri*, *A. himantopus*, *A. melanotus*, *A. moschata* fer.; Brazil).—Nord., 1840, 629.—Also reported for *Cariacus paludosus*.

macrocephalum Rud., 1803a, 21–23 (*Strix bubo*) (includes: *Fasc. strigis* Gmelin, 1790a, and *Strigea Abildg.*, 1790 [Copenhagen]) [type of *Amphist.*, by inclusion]; 1809a, 50, 340–342 (in *Strix ulula*, *S. otus*, *S. bubo*, *S. flammea*, *Scolopax gallinago*); 1814a, 99–100; 1819a, 88 (additional hosts: *Falco albicilla*, *F. aluco*, *F. apivorus*, *F. buteo*, *F. chrysaetos*, *F. cineraceus*, *F. cyaneus*, *F. gallicus*, *F. haliaetos*, *F. lagopus*, *F. lanarius*, *F. leucosoma*, *F. lithofalco*, *F. milvus*,

AMPHISTOMA—Continued.

- F. nævius*, *F. nisus*, *F. palumbarius*, *F. pennatus*, *F. peregrinus*, *F. rufipes*, *F. subbuteo*, *F. tinnunculus*, *Strix brachyotus*, *S. dasypus*, *S. passerina*, 354–355 (includes *Holost. variabile* Nitzsch, and *Fest. otii*, 793.—Baird, 1853a, 47, 48 (to *Holost.*).—Bellingham, 1844a, 338.—Brand., 1888a, 10.—Bremser, 1824, pl. 8, figs. 18, 19, 21, 22.—Cobbold, 1858b, 164 (syn. of *Hemist. spathula* Dies., see next entry).—Crep., 1839, 288.—Dies., 1850a, 312–313 (*A. mac.* of Rud., 1809a, 340; 1819a, 88, exc. syn.; Westrumb, 1823, 391; Bremser, 1824, pl. 8, figs. 18, 19, 21, 22, all as syn. of *Holost. variabile*); 1858e, 320 (syn. of *Holost. variabile*).—Fischer., 1840, 157.—Fischder, 1901, 367; 1902a, 7 (= *Plan. strigis*): 1903h, 490 (= *strigis*; type of *Strigea*, *Amphist.*, *Holost.*).—Lamarck, 1816, 188.—Lamouroux, 1822a, 297.—Nitzsch, 1819, 400 (syn. of *Holost. variabile*).—Nord., 1840, 625 (syns. *Fasc. strigis*, *Holost. variabile*).—Olfers, 1816, 47.—Stoss., 1898, 21 (syn. of *Holost. variabile*).—Westrumb, 1823, 392–393.
- macrocephalum* Rud., 1819a, 88 (pars: *falconis milvi*).—Baird, 1853a, 48.—Bremser, 1824, pl. 8, figs. 17, 20.—Dies., 1850a, 309 (syn. of *Hemist. spathula*).—Linst., 1905, 191.—Nord., 1840, 626 (syn. of *A. striatum*).
- megacotyle* Dies., 1836d, 238, 250, pl. 23, figs. 19–20 (*Silurus palmito*; Matogrosso); 1850a, 405 (*Trachicirrhus nattereri*; Brazil).—Braun, 1893a, 905.—Duj., 1845a, 340 (in *Sil. palm.*; Brazil).—MacCallum, 1905, 668 (in *Silurus*).—Nord., 1840, 629.
- microcephalum* Rud., 1819a, 88, lapsus for *A. microstomum* Rud.
- microstomum* Rud., 1809a, 342–343 (*Corvus caryocatactes*; Europe); 1819a, 88, 793.—Dies., 1850a, 314 (to *Holost.*): Duj., 1845a, 371 (Greifswald, (to *Holost.*).—Lamouroux, 1822a, 297.—Olfers, 1816, 47.—Westrumb, 1823, 393.
- mutabile* (Zed., 1800) Sieb., 1835, 70, lapsus for *Monost. mut.*
- nattereri* Cobbold, 1860a, 52; cornu Dies., 1839a [not (Zed., 1800) Rud., 1809], renamed; t. h. *Callichthys vacu*; Brazil.
- oidemia nigra* Dies., 1858e, 322 (syn. of *Holost. anatis nigra*), based on Bellingham, 1844a, 340, Ireland.
- ornatum* Cobbold, 1882a, March, 240, fig. 9 (*Elephas indicus*).—Braun, 1893a, 882, 905.—Fischder., 1902a, 49 (in *Elephas indicus*; India).—Looss, 1902m, 439.—Mégnin, 1882v, 454–456 (in elephant).—Sons., 1895, 183.
- oxycephalum* Dies., 1836d, 238, 240, 251, pl. 24, figs. 1–8 (*Salmo auratus*, *S. pacu*, *Silurus megacephalus* at Cuyaba, *Salmo pacupeba* at Rio Panara and Rio Araguay); 1850a, 407.—Braun, 1892a, 586; 1893a, 905.—Duj., 1845a, 339–340.—MacCallum, 1905, 668, 672 (in *Salmo* and *Silurus*).—Nord., 1840, 629.
- papillatum* Cobbold, 1882, 240–242, fig. 10, pl. 24, fig. 11 (*Elephas indicus*).—Braun, 1892a, 580, 663; 1893a, 874, 905; 1893d, 466.—Fischder., 1902a, 49 (in *Elephas indicus*; India).—Sons., 1895, 184, 187, figs. 4–5.
- papilliferum* Braun, 1892a, 586, for *A. papillatum* Cobbold.
- pileatum* (Rud., 1802) Rud., 1819a, 90, 358, 793.—Blainv., 1828, 584 (to *Holost.*).—Dies., 1850a, 314 (to *Holost.*).—Lamouroux, 1822a, 297.—Westrumb, 1823, 395.
- pileatum* Rud., of Bremser, 1824, pl. 8, figs. 28–29.—Dies., 1850a, 311 (syn. of *Hemist. commutatum*).
- piriforme* Sons., 1895, 184 (for *pyriforme*).
- platycephalum* Crep., 1825a, 39–41, 81–82 (*Colymbus rufogularis*; Greifswald); 1846, 138, 139, 140, 141.—Dies., 1850a, 313 (to *Holost.*).—Duj., 1845a, 376 (to *Holost.*).
- pulcherrima* Weyenbergh, 1876, 167–169, pl. 9, figs. 75–78 (in *Hypostomus plecostomus* Val.; Argentina); 1878, 354 (to *Dist.*).—Looss, 1885b, 55.
- pyriforme* Dies., 1835a, 189 (in *Tapirus americanus*); 1839a, 236, pl. 20, figs. 17–18 (*Tap. amer.*; Matogrosso or Cachoeira do Bananeira); 1850a, 403 (Brazil).—Braun, 1893a, 874, 905; 1893d, 466 (in *Tap. amer.*).—Cobbold, 1875n, 819; 1879b, 402.—Duj., 1845a, 334.—Fischder., 1902a, 36 (to *Cladorchis*).—Nord., 1840, 629.—Sons., 1895, 184 (*piriforme*).—Weyenbergh, 1878, 167–169.
- rhopaloides* Crep., 1839, 294; 1846, 168 ('falsch geschriebene ropaloides' Leblond).—Baird, 1853a, 116 (syn. of *Tetrabothriorhynchus barbatus*).—Dies., 1850a, 374 (syn. of *Tetrab. migratorius* in *Conger vulgaris*) (includes Leblond, 1836e, 290, pl. 16, figs. 1–3; 251.—Deslongchamps, —, 294.—Duj., 1845a, 341.—Sieb. 1837, 265; 1838, 306).—Lacaze-Duthiers, 1854a, 294.

AMPHISTOMA—Continued.

- ropaloides* Leblond, 1836e, 290, pl. 16, figs. 1-3 (Muræna conger; coast of Normandie); 1836f, 4, pl. 16, figs. 1-3 (in Muræna conger).—Crep., 1839, 294.—Deslongchamps, —, 249.—Duj., 1845a, 341 (coast of Normandie).—Sieb., 1837, 265; 1838, 306.—Vaulleuard, 1899, 82.
- scleroporium* Rud., of Brand., 1891d, 19 (for Creplin?).
- scleroporium* Crep., 1844a, 112-115, pl. 3, fig. A (*Chelonia mydas*); 1846, 146.—Braun, 1893a, 905; 1899b, 715 (in *Chelone viridis*), 725 (*C. mydas*); 1901a, 39, 40, 55, 56, 1 fig.—Dies., 1850a, 406 (*Halichelys atra*; Vratislaviæ).—Looss, 1901, 623, 624; 1902m, 430, 437, 438, 440, 562.—Mont., 1896, 165.—Walter, 1892, 248.
- serpens* (Nitzsch, 1819) Rud., 1819a, 88, 353-354 (in *Falco haliaëtus*; September), 793.—Dies., 1850a, 316 (to Holost.).—Duj., 1845a, 371, at Halle (to Holost.).—Lamouroux, 1822a, 297.—Nord., 1840, 628 (to Holost.).—Westrumb, 1823, 392.
- sonsinoi* Linst., 1889, 23 (for *sonsinoi*) (in *Equus caballus*).—Ward, 1895, 338, (syn. of *Gastrodiscus agyptiacus*) (in *Equus caballus*).
- species Bellingham, 1844, 340.—Braun, 1901a, 55, 56.—Looss, 1902m, 430.
- species Cobbold, 1879, in *Equus caballus*.—Ward, 1895, 338.
- species Fischder., 1903, v. 17, 594; 1904, 468, syn.? of *Paramphist. scoliocelium*.
- species in *Felis catus*.
- species in *Phoca grœnlandica*.
- sphærocephalum* Westrumb, 1823, 396 (*Coracias jugularis*; at Rio Janeiro).—Brandes, 1888a, 65 (to Holost.); 1890a, 592.—Dies., 1850a, 314 (to Holost.; in *Coracina scutata*; Brazil).
- sphærule* Rud., 1803a, 23-24 (*Corvus cornix*; Greifswald); 1809a, 345-346; 1819a, 90, 358.—Bellingham, 1843a, 343; 1844, 339.—Dies., 1850a, 314 (to Holost.).—Duj., 1845a, 371 (to Holost.).—Lamouroux, 1822a, 297.—Olfers, 1816, 47.—Westrumb, 1823, 395.
- spinulosum* Looss, 1901l, 7 Nov., 623-624 (in *Chelone mydas*; Alexandria, from Egyptian coast); 1902m, 415, 430-444, pl. 21, figs. 10, 11; pl. 22, figs. 12-16, 430, 434, 436, 437, 438, 439, 442, 649, 676, 869 (colon of *Ch. mydas*), 871.—Shipley, 1905, v. 2, 846.
- stanleyi* (Cobbold, 1879) Ward, 1895, 338 (in *Equus caballus*) (for *stanleyii* Cobbold).
- stanleyii* Cobbold, 1875n, 819.—Fischder., 1902a, 48 (*stanleyi*) (in *Equus caballus*; India).
- striatum* Rud., 1809a, 343 (*Falco milvus*; Europe); 1819a, 88 (syn. of *A. macrocephalum*, 793.—Baird, 1853a, 47 (syn. of Holost. macroceph.).—Dies., 1850a, 309 (syn. of *Hemist. spathula*).—Lamarck, 1816b, 188.—Nord., 1840, 626 (syn. *A. macroceph. Rud.*).—Olfers, 1816, 47.
- subclavatum* (Geze, 1782) Rud., 1802b, 92-93; 1809a, 348-349 (in *Rana temporaria*, *R. bufo*, *R. arborea*, *R. esculenta*); 1819a, 90-91 (in *Bufo igneus*, *B. cinereus*), 358-359, 589, 793.—Baillet, 1866b, 96 (of Nitzsch).—Ben., 1858a, 1861a, 81-84, 171, 203, 215 (syns. *Plan. subclavata*, *Dist. subclavatum*, *Diplodiscus subclavatus*, *Dip. diesingii*, *Diplocotyle mutabile*).—Bettend., 1897a, 8, 37; 1897, 312.—Blainv., 1828a, 53.—E. Bl., 1847a, 316-317, pl. 14, fig. 1.—Brand., 1891d, 17.—Braun, 1892a, 592, 798; 1893a, 845, 848, 851, 852, 854, 858, 864, 869, 874, 879; 1893b, 177, 179, 180, 182; 1895b, 11.—Bremser, 1824c, pl. 8, figs. 30-31; 1824, 133.—Cobbold, 1872b, 91 (to *Diplodiscus*); 1879b, 49, 452, 454.—Crep., 1839a, 286.—Creutzburg, 1890a, 21.—Darr, 1902a, 678, 688.—Dies., 1836d, 237, 238, 240, 253 (to *Diplodiscus*); 1850a, 318 (in *Dendrohyas viridis*, *Rana temporaria*, *Pelophylax esculentus*, *Phryne vulgaris*, *Bufo viridis*, *Bombinator igneus*, *Leptodactylus sibilatrix*); 1858e, 360, 1859c, 435.—Duj., 1845a, 336, 339 (in *Rana esculenta*; Rennes).—Erc., 1881e, 57 (embryo), pl. 2, fig. 9; 1882a, 293.—Fil., 1837a, 338 (syn. *Diplodiscus subcl.*); 1854a, 6; 1855b, 13-17, pl. 2, figs. 14-16 (in *Planorbis vortex*; Moncalier); 1857c, 32.—Fischder., 1903h, 487 (to *Diplodiscus* by Dies.).—Fraip., 1880c, 419.—Gerv. & Ben., 1859b, 212.—Gronkowski, 1902a, 515 (8).—Hoyle, 1890, 539.—Ijima, 1884c, 638.—Kitt, 1885a, 148.—Knoch, 1894a, 10.—Lamarck, 1816b, 189.—Lamouroux, 1822a, 297 (*Amphistome*).—Lang, 1892a, 81-89, 1 fig. (syn. *Diplodiscus subcl. Dies.*) (*Cerc. of*); 1893a, 479.—Lejtenyi, 1881a, 5, 8, 10, 18, 20.—Leuck., 1863, 82, 488, 491; 1879, 107; 1886d, 80.—Levin., 1881a, 63, 69.—Looss, 1892b, 147-167, 1 fig., pls. 19-20 in text (devel-

AMPHISTOMA—Continued.

- opment); 1894a, 8, 85, 117, 133, 136, 137, 142, 146, 150, 169, 178, 206, 227, 234, 237, 248; 1894d, 17, 21, 22; 1896b, 17, 31, 138, 171, 172, 178, 179, 180, 181, 182, 183, 188, 189, 190; 1901, 441; 1902m, 438, 444 (Cerc. diplocotylea).—Macé, 1882, 12.—Mont., 1888, 39, 49, 50, 73, 78; 1891, 117; 1893, 68, 160, 205.—Moul., 1856a, 18, 20 (eye of Cerc.), 47 (embryo, 125 μ), 50, 125 (eye of Cerc.), 208–211, pl. 6, fig. 10 (Cerc.=Diplodiscus diesingii) (in Planorbis vortex), 212.—Mueller, ———, Nitzsch, 1819, 398–399 (syn. Plan. subcl. Gœze).—Nord., 1840, 627 (syns. Plan. subcl., Fasciolaria ranæ Gmelin, Diplodiscus subcl. Dies.).—Olfers, 1816, 45, 48.—Pag., 1857, 25, 26, 49–50, 52, pl. 6, figs. 5–9 (in braunen Frosche).—Poir., 1885, 102.—Risso, 1826, 262.—Roosbach, 1906, 368, 369, 375, 392, 394, 402, 405, 408, 413, 414, 423, 429, 431.—Sieb., 1835, 56, 57, 67, 70; —, v. 1, 160.—Slawikowski, 1819, 49.—Sons., 1884, 59, 60, 61; 1893, 187 (subelavatum) 188 (in Rana temporaria), 189 (in Triton cristatus, Rana esculenta L.).—Ssinitzin, 1904, 768, figs. a, b; 1906, 684.—Stephens, 1906, 10.—Tennent, 1906, 650.—Villot, 1878, 6.—Wagener, 1857, 26, 27.—Walter, 1858, v. 1, in 268–297, pls. 11–13; 1866, 64–65.—Westrumb, 1823, 396.—Zed., 1803a, 198, pl. 3, fig. 3.
- subclaratum* Rud. of Staff., 1900, 405, 412 (“rectum of frogs, chiefly of the small grass frogs;” Canada); 1905, 689–690 (Rana virescens Kalm, R. catesbiana Shaw; Canada), renamed Diplodiscus temperatus.—Looss, 1885b, 24.
- subelavatum* Sons., 1893, 187, for subclavatum.
- subtriquetrum* Rud., 1814a, 100 (Castor fiber; Berlin, May); 1819a, 91–92, 360–361, 577, 589, 793.—Blainv., 1828, 583.—Bojanus, 1821, 164, pl. 2, figs. 5–12.—Braun, 1892a, 578, 601, 608, 680, 681, 694, 746; 1893a, 905.—Bremser, 1824c, pl. 8, figs. 32–33.—Civinini, 1842, ———.—Cobbold, 1879, 317.—Crep., 1837, 313, 323; 1841, 80.—Dies., 1836d, 238, 244, 245, 246, 248–249, pl. 23, figs. 7–9 (in Castor fiber) (syn. Dist. amphistomoides); 1850a, 402 (syn. Dist. amphistomoides).—Duj., 1845a, 331–332.—Eichwald, 1829a, 249.—Fischer, 1840, 157.—Fischder., 1901, 373; 1902a, 41, 42 to Cladorchis (Stichorchis); 1903h, 506, 507.—Kuech., 1855, 192.—Lamoureux, 1822a, 297.—Leidy, 1888, 126.—Leuck., 1863, 460.—Macé, 1882, 9.—Mol., 1859, 849 (in Castor fiber).—Nitzsch., 1819, 398, 399.—Nord., 1840, 547.—Olfers, 1816, 47.—Otto, 1896, 105–108, fig. 8.—Schmalz, 1831, 24, 27.—Sieb., 1835, 64, 65.—Slawikowski, 1819, 52.—Sons., 1895, 184, 187, fig. 7.—Westrumb, 1823, 397.—Also reported for Arvicola campestris, Fiber zibethicus.
- subtriquetrum giganteum* Kuech., 1855, 192.
- sylvia* Rud., 1819a, 675 (Sylvia cyanea; Brazil), 793.—Dies., 1836, 253.—Westrumb, 1823, 398.
- tadornæ* Rud., 1819a, 89 (for A. anatis tadornæ and syn. of A. isostomum), 793.
- tanagræ* Rud., 1819a, 674–675 (Tanagra tataoa; Brazil), 793.—Dies., 1836, 253.—Duj., 1845a, 335.—Westrumb, 1823, 397.
- tenuicolle* Westrumb, 1823, 391–392, pl. 5, fig. 2 (Falco rufus).—Dies., 1850a, 316 (to Holost.); Mus. Cat. Vien.
- truncatum* Rud., 1819a, 91, 359–360 (in Phoca vitulina; Berlin and Vratislavæ), 793.—Anacker, 1888b, 314; 1892c, 94.—Baillet, 1866b, 105 (syn. of Dist. conus).—Braun, 1892a, 578, 586; 1893a, 875, 905; 1893, 348, 349, 350; 1893d, 467 (in Phoca sp.); 1893f, 382, 383, 384, 385, 386, 389, 424, fig. 1; 1893g, 802 (syn. of Dist. conus Crep.).—Cobbold, 1875n, 819; 1879b, 307, 313.—Crep., 1839, 286.—Dav., 1877a, lxxx.—Dies., 1836, 238, 252, pl. 24, figs. 13–15; 1850a, 404; 1858e, 350 (syn. of Dist. conus), 358 (in Phoca grœnlandica).—Duj., 1845a, 331.—de Jong, 1896a, 3, 4, 5.—Lamoureux, 1822a, 297.—Linst., 1878, 44.—Mol., 1859, 849 (in Felis catus).—Mont., 1889, 321.—Verrill, 1870, 175, 220.—Ward, 1895, 341 (in Canis familiaris).—Westrumb, 1823, 397.—Zuern, 1882, 223.
- truncatum* of Dies., 1850a, 404 (in Felis catus); 1858e, 332 (syn. of Dist. lanceolatum).—Kitt, 1885a, 148 (in cat).—Sons., 1889, 281 (syn. of Dist. conus Crep.).—Stoss., 1892, 25 (syn. of Dist. conus Crep.).
- trunkatum* Schneidemuehl, 1896, 303, for truncatum.
- tuberculatum* Cobbold, 1875n, 819 (in ox; India); 1879b, 332.—Fischder., 1902a, 49 (in Bos taurus; India).—Stiles, 1898a, 67, 140.—Ward, 1895, 332 (in Bos taurus).
- unciforme* Rud., 1819a, 674 (Oriolus cristatus; Brazil), 793.—Braun, 1892a, 578; 1893a, 905.—Dies., 1836d, 238, 252–253, pl. 24, figs. 16–18; 1850a, 404.—Duj., 1845a, 335.—Westrumb, 1823, 397.

AMPHISTOMA—Continued.

unguiculatum Rud., 1819a, 91, 360 (Triton palustris; Berlin), 793.—Baird, 1853a, 44 (syn. of *A. subclavatum*).—Crep., 1839a, 286.—Dies., 1836d, 237, 254; 1850a, 319 (to *Diplodiscus*).—Fischder., 1903h, 487 (to *Diplodiscus* by Dies.).—Lamouroux, 1822a, 297.—Nitzsch, 1819, 399 (in *Wassersalamander*).—Westrumb, 1823, 397.

urnigerum Rud., 1819a, 89, 356–357 (in *Rana esculenta*; Mus. Vien.), 793.—Baird, 1853a, 49 (to *Holost.*).—Blainv., 1828a, 583.—Braun, 1892a, 796.—Bremser, 1824c, pl. 8, figs. 24–27.—Crep., 1825a, 41–45, 83.—Dies., 1850a, 318 (syn. of *Codonocephalus mutabilis*; type of *Codonoc.*).—Duj., 1845a, 378, 379 (to *Holost.*) (in *Rana esculenta*; Paris).—Lamouroux, 1822a, 297.—Moul., 1856a, 16 (type of *Codonocephalus* Dies., 1850).—Nitzsch, 1819, 400.—Sons., 1893, 190 (syn. of *Cod. mut.* Dies.).—Westrumb, 1823, 394.

vallei (Stoss., 1899) Looss, 1902m, [418], 430 (to *Lophotaspis*), 890; the reference on p. 890 (index) is apparently a lapsus for *A. spinulosum*.

variegata Crep., 1825a, 38–39, figs. 4–6 (in *Larus marinus*; Greifswald); 1846, 139, 140, 146.—Dies., 1850a, 315 (to *Holst.*).—Duj., 1845a, 376.

watsoni Conyngham, 1904, Aug. 13, 464, Aug. 15, 252, Aug. 27, 355; 1904, Sept. 17, 663, figs. 1–2 (in *Homo*; Africa); 1904, Sept. 29, 1480; 1904, Oct. 8, 710; 1904, Sept. 8, 1092.—Shipley, 1905, 8 (syn. of *Cladorchis watsoni*); original patient in Zola (Nigeria) came from Adamawa, German West Africa.

AMPHISTOMÆ Mont., 1888a, 18.

AMPHISTOMATA Bojanus, 1817b, 275, 276.

AMPHISTOMATIDÆ Gamb., 1896a, 73.

AMPHISTOME Lamouroux, 1822a, 297, for *Amphistoma*.

AMPHISTOMÆE Zuerni, 1882, 113.—Brand., 1888, 49.—Braun, 1893a, 886.—Mont., 1888a, “mihi,” 7, 11, 12, 14, 15, 16, 18, 34, 36, 38, 41, 51, 52, 56, 57, 60, 90, 91, 102, 103; 1892, Oct. 7, 195.

AMPHISTOMIDÆ E. Bl., 1847a, 309.—R. Bl., 1895, 730.—Brand., 1890a, 576.—Braun, 1893a, 886, 890, 895, 900, 904; 1895b, 136.—Cobbold, 1877, 235; 1879b, 4.—Cohn, 1904, 242.—Fischder., 1901, 367; 1902a, 8 (renamed *Paramphistomidæ*; 1903h, 489, 490 (syn. of *Paramphistomidæ*).—Kholodk., 1898, 25, 33.—Looss, 1899, 541, 542, 543.—MacCallum, 1905, 667.—Mont., 1888a, “mihi,” 21, 90, 91, 103, 108; 1892, Oct. 7, 214 (f. of *Malacocotylea*); 1893, 82.—Mueh., 1898, 20.—Nickerson, 1902, 612.—Poir., 1883, 74; 1885, 147.—Schneidemuehl, 1896, 295.—Sons., 1895, 184, 185, 186.—Stiles, 1898a, 22, 24, 27, 64.—Stiles & Hass., 1898, 87.—Zuern, 1882, 113.

1895: *Amphistomidi* Sons., 1895.

[AMPHISTOMINA Lankester, E. R., 1890, 846 (f. of *Gromiidea*, Protozoa).]

AMPHISTOMINÆ Mont., 1892, Oct. 7, 214 (subf. of *Amphistomidæ*).—Braun, 1893a, 890.—Looss, 1899, 541, 543.—Not *Amphistominæ*, subf. of *Gromidæ* (Protozoa), see Calkins, 1901b, 106.

AMPHISTOMULUM Brand., 1892b, Oct. 7, 510 (proposed as an artificial collective group to contain immature amphistomes).—Stiles, 1902, 28, 48.

AMPHISTOMUM Nitzsch, 1819, 397.—Crep., 1825a, 35 (for *Amphistoma*, q. v.).

[AMPHITYPIE, a term, not a zoological name, see Looss, 1902m, 789–792.]

AMPHYSTOMA Rud., 1803a, 29 (for *Amphistoma*, q. v.)

ANADASMUS Looss, 1899b, 568–569 (m. *amphiorchis*) [not *Anadasmus* Walsingham, 1897, insect]; 1900d, 601, 602 (renamed *Orchidasma*); 1902m, 839.—Braun, 1901b, 20.—Luche, 1901, 488.—Stiles, 1901, 185, 189, 191.

amphiorchis (Braun, 1899) Looss, [1899b, 568, 569]; 1902m, 463 (to *Orchidasma*).

ANAPORRHUTINÆ Looss, 1901, 205 (subf. of *Fasciolidæ*); 1901, 558; 1902, 479, 485, 844, 862–863 (diagnosis).—Odhn., 1902, 65, 68.—Pratt, 1902a, 888, 901 (key) (includes *Anaporrhutum*, *Plesiorchorus*; related genus *Callodistomum*).

ANAPORRHUTUM Offenheim, 1900, 145–186 (type *albidum* Brand., designated by Looss, 1900b, 204).—Braun, 1902b, 23.—Darr, 1902, 652.—Looss, 1901b, 204, 205, 209; 1901l, 557, 558; 1902m, 479, 480, 481, 482, 484, 485, 526, 621, 813, 814, 844, 848, 851, 852, 853, 854, 855, 857 (*Anaporrhutinæ*), 858, 859, 860, fig. B. V, 863 (diagnosis).—Odhn., 1902, 65, 67.—Pratt, 1902a, 888, 900 (key), 901 (key).

ANAPORRHUTUM—Continued.

- albidum* Brand. in Ofenheim, 1900, 145–186, figs. 1–4 in text, pl. 3, figs. 1–8 (in body cavity and pericardium of *Aëstobatis narinari*, in Pacific).—Hollack, 1902a, 868.—Looss, 1901b, 204 (type of genus), 206, 209; 1901l, 557; 1902m, 479, 482, 483, 484, 620, 622, 623, 624, 625, 628, 791 (Amphitypie), 844, 848, 851, 852, 855, 857, 863.—Odhn., 1902, 154.
- ricchiardii* (Lopez, 1888) Looss, 1901b, 204, 206, 209; 1901l, 557, 558; 1902, 479, 482, 483, 484, 621, 622, 791 (Amphitypie), 844, 848, 852, 853, 854, 855 (to *Probolitrema* as type).
- ricchiardii* (Lopez of Ofenheim) Looss, 1902m, 479, 482, 483, 484, 621, 622, 852, 854, 855 (renamed *Probolitrema capense*).
- richiardi* of Ofenheim, 1900, 169–180, 178, 179, 180, 185, 186, pl. 3, figs. 9–12 (in *Scyllium* sp., Atlantic, near Kapstadt).—Odhn., 1901, 61; 1902, 61.
- ANCHITREMA Looss, 1899b, 637 (m. sanguineum); ἀγγι, near related; 1901b, 200; 1902m, 839.—Klein, 1905, 78; 1905, 20.—Luehe, 1901, 487.—Odhn., 1902, 41.—Ofenheim, 1900, 183.—Pratt, 1902a, 889, 905 (key).
- mutabile* (Mol., 1859) Rizzo, 1902, 27–28, fig. 1 (*Ascalobotes mauritanicus*, *Lacerta agilis*).
- sanguineum* (Sons., 1894) Looss, 1899b, 637; 1902m, 492, 818, 823.—Heymann, 1905, 97.—Luehe, 1900aa, 565, 566.
- ANCYROCEPHALUS Crep., 1839a, 292 (m. paradoxus).—Cerf. 1895h, 918; 1896, 514.—Dies., 1850a, 416; 1858e, 314, 368 (f. *Polycotyale*, subf. *Aplacocotyale*).—Mont., 1903, 336 (syn. of *Tetraonchus*).—Stiles & Hass., 1905b, 85.
- paradoxus* Crep., 1839a, 292 (in *Perca lucioperca*); 1846, 155.—Dies., 1850a, 416 (Greifswald, Vienna, Gedani); 1858e, 368, pl. 1 (in *Lucioperca sandra*).—Duj., 1845a, 654 (in P. luc.).—Kroyer, 1838–40a, 579 (in *Lucioperca sandra*).—Mont., 1888, 90; 1889, v. 3(2), 113–116 (syn. of *Tetraonchus unguiculatus* Wagener; in *Lucioperca sandra*, *Perca fluviatilis*); 1889, 26 Oct., 516–517; 1891, 109; 1893, 113–116.—Sieb., —, 298.—Tasch., 1879, 238, 264 (syn. of of *Tetraonchus unguiculatus* Wagener).
- ANCYROCOTILE Massa, 1903, 252, for *Ancyrocotyle*.
- ANCYROCOTYLE Par. & Mont., 1903, v. 7 (1), 117–123, pl. 3, figs. 1–6 (m. vallei); 1904, May 17, 280.—Massa, 1903, 252 (*Ancyrocotyle*); 1906, 44, 48.—Mont., 1903, 335 (subf. *Ancyrocotylinæ*; f. *Tristomidæ*).
- vallei* (Par. & Perugia, 1895) Par. & Mont., 1903, 117–121, pl. 3, figs. 1–6 (*Naucrates ductor*).
- ANCYROCOTYLINÆ Mont., 1903, 335 (subf. of *Tristomidæ*).
- ANGIODICTYUM Looss, 1902m, 648 (misprint for *Angiodictyum*).
- ANGIODICTYIDÆ Looss, 1902m, 484, 617–684 (anat. histol.) 683 (diagnosis, key to genera), 699, 843 (contains *Deuterobaris*, *Octangium*, *Microscaphidium*, *Angiodictyum*, *Polyangium*).
- ANGIODICTYUM Looss, 1902m, 433, 632, 634, 639, 641, 642, 645, 647, [648], 652, 657, 658, 659, 665, 666, 668, 675, 679, 681, 683, 684, 688–689 (diagnosis, m. parallelum [Looss]), 691, 698, 699.
- 1902: *Angiodictyum* Looss, 1902m, 648.
- parallelum* (Looss, 1901) Looss, 1902m, 632, 689–690, 696, 698, pl. 29, figs. 134–136, pl. 30, figs. 137–142.
- ANISOCADIUM Looss, 1902e, 637, new name for *Anisogaster* Looss, 1901, 658 (not *Anisogaster* Deyr, 1863, coleopteron), hence type fallax; 1902m, 789.
- fallax* (Rud., 1819) Looss, 1902m, 789.
- ANISOCELINÆ Looss, 1901e, 658.
- ANISOCELINÆ Pratt, 1902a, 888, 894 (key), 899 (for *Anisoceliinæ* Looss) contains *Anisocelium* and *Anisogaster*.
- ANISOCELIUM Luehe, 1900, 504–507 (m. capitellatum).—Looss, 1901, 656, 658, 659; 1901, 206.—Odhn., 1905, 314.—Pratt, 1902a, 888, 895 (key), 899.
- capitellatum* (Rud., 1819) Luehe, 1900, 504–507, 508; 1901, 399.—Hollack, 1902a, 868.—Looss, 1901, 656–658, 659, 660, fig. 12; 1902, 789.—Stoss., 1901, 97 (in *Uranoscopus scaber*) (9).
- ANISOCOTYLINÆ Mont., 1903, 336 (f. *Monocotylinæ*); 1904, 118; 1905, 70, 71; 1905, 117.

ANISOGASTER Looss, 1901e, 658 (tod. fallax Rud.) [not Anisogaster Deyr, 1863, coleopteron]; renamed Anisocladium Looss, 1902e, 637; 1902e, 789.—Pratt, 1902a, 888, 894 (key), 899.

fallax (Rud., 1819) Looss, 1901e, 658–660, 661, fig. 13.

gracilis Looss, 1901e, 660–661, fig. 14 (in *Uranoscopus scaber*; Triest).

“ANOICTOSTOMA Stoss.” of Braun, 1899, 789, for Anoiktost. 1901b, 34; 1901f, 568; 1902b, 28, 30, 31.

planicolle (Rud., 1819) Braun, [1901f, 567;] 1902b, 28–31, fig. 20 (syns.: Dist. planicolle Rud., 1819; Duj., 1845; D. (Echinost.) planicolle Brand., 1892; Monost. echinostomum Dies., Mont.).

ANOIKTASTOMA Pratt, 1902a, 888, 894 (key), for Anoiktost.; related to Centrocestinae.

ANOIKTOSTOMA Stoss., 1899, 11, 15–16 (*coronatum*=*corvinæ*=*alloysiæ*).—Looss, 1899b, 580, 581, 582, 583 (tld. *coronatum*=*corvinæ*=*alloysiæ*), 625.

1899: Anoictostoma Braun, 1899, 789.

1901: Anoictostoma Vaullegeard, 1901, 143.

1902: Anoiktastoma Pratt, 1902a, 888, 894 (key).

alloysiæ (Stoss., 1885) Stiles & Hass., 1908, 99.

cesticillus (Mol., 1858) Stoss., 1899, 15 (includes Dist. *bicoronatum* Stoss., 1883, 113, pl. 1, figs. 1–3) (in *Corvina nigra*, *Umbrina cirrhosa*, *Lophius piscatorius*, *Zeus faber*).—Looss, 1899b, 576 (type of Stephanost.).

coleostomum (Looss, 1896) Stoss., 1899, 15.—Looss, 1899b, 585 (type of Ascocotyle).

coronarium (Cobbold, 1861) Stoss., 1899, 16 (int. of *Alligator mississippiensis*).—Looss, 1899b, 578 (to *Acanthost.*); 1901 (to *Acanthochasmus*).

coronatum (Wagener, 1852) Stoss., 1899, 15 (including Dist. *corvinæ* and Dist. *alloysiæ* Stoss.) (int. of *Corvina nigra*); [name not available, see *corvinæ*] (type by designation of Looss, 1899b, 583).

corvinæ (Stoss., 1886) (type by designation, Looss, 1899b [581–583], [see *alloysiæ* 1885]).

cuspidatum (Looss, 1896) Stoss., 1899, 15 (int. of *Milvus parasiticus*; Egypt).—Looss, 1899b, 584 (to *Centrocestus* as type).

fallax (Rud., 1819) Stoss., 1899, 16 (intest. of *Uranoscopus scaber*.—Type of *Anisogaster*, 1901; type of *Anisocladium*, 1902).

hystrix (Duj., 1845) Stoss., 1899, 15 (stomach of *Lepidoleprus trachyrhynchus*, *Lophius piscatorius*, *Merlangus carbonarius*, etc.).—Looss, 1899b, 576 (to Stephanost.).

imbutiforme (Mol., 1859) Stoss., 1899, 16 (intest. of *Labrax lupus*).

inflatum (Mol., 1859) Stoss., 1899, 16 (as doubtful) (intest. of *Anguilla*).

lydiæ (Stoss., 1896) Stoss., 1899, 15 (intest. of *Orthogoriscus mola*).—Looss, 1899b, 576 (to Stephanost.).

planicolle (Rud., 1819) Braun, [1901e, 567 (sub Anoictost.);] 1902b, 28, fig. 20 (includes Dist. planicolle Rud., 1819a, 687; Duj., 1845a, 430; Monost. echinostomum Dies., 1850a, 326; Mont., 1892, 30; Dist. (Echinost.) planicolle of Brand., 1892, 506).

pristis (Deslongchamps, 1824) Stoss., 1899, 15 (intest. of *Gadus euxinus*).—Looss, 1899b, 576 (to Stephanost.).

scabrum (Mueller, 1788) Stoss., 1899, 16 (intest. of *Gadus morrhua*, *Merlangus pol-lachius*, *Lota molva*).—Looss, 1899b, 582 (to D. (Hemiusus)).

sobrinum (Levin., 1881) Stoss., 1899, 15 (intest. of *Cottus scorpius*).—Looss, 1899b, 576 (to Stephanost.).

spiniceps (Looss, 1896) Stoss., 1899, 15 (in intest. of *Bagrus bayad*).—Looss, 1899b, 578, 582 (to *Acanthosomum* as type).

ANOITOSTOMA Vaullegeard, 1901, 143 (misprint for Anoiktost.).

ANOPLDISCUS Sons., 1890, 172 (m. richiardii); 1891, v. 15, 147–148.—Braun, 1891d, 422; 1893a, 890.—Gamb., 1896a, 73.—St.-Remy, 1898, 522, 524.—Mont., 1892, Oct. 7, 213 (g. of *Calceostominae*); 1903, 336 (subf. *Anisocotylinæ*); 1905, 65, 66, 68, 70.—Pratt, 1900a, 646 (key), 654.

richiardii Sons., 1890, v. 7, 16. Nov., 172 (t. h. *Pagrus orphus*); 1891, v. 15, 147–148.—Braun, 1891d, 422.—Mont., 1891, 108; 1905, 65–68, figs. 1–3 (host *P. orphus*).—Par., 1894, 138, 672, at Pisa.

ANTHOCOTILE Par. & Perugia, 1890, 11, 13, for Anthocotyle.

ANTHOCOTYLE Ben. & Hesse, 1863; 1864, 96, 104 (m. merluccii).—Braun, 1890a, 413, 415, 516, 517, 523, 534, 536, 546; 1893a, 890.—Cerf., 1895d, 476-478; 1895e, 510-527, 1 pl., figs. 1-9; 1895g, 536; 1895h, 913, 918, 920; 1896b, 422-423; 1896d, 497-510, 514, 515; 1899a, 345, 391.—Gamb., 1896a, 73.—Hoyle, 1890, 539 ("one species (A. merluccii) found in the hake").—Mont., 1888a, 11, 66, 86, 89, 99; 1892, Oct. 7, 213 (subf. of Octocotylinæ); 1903, 336, (subf. Diaphorocotylinæ).—Pratt, 1900a, 646, 653 (key), 656, fig. 37.—St.-Remy, 1898, 556.—Scott, 1901, 148.—Sons., 1895, v. 6 (6), 118-121; 1896, June 4, 790.—Tasch., 1879, 69; 1879, 238, 247.

merluccii Ben. & Hesse, 1863; 1864, 105, pl. 10, figs. 8-12 (in *Merluccius vulgaris*).—Cerf., 1895e, 510, 511-525, figs. 1-8; 1896, 497, 500, 510; 1896, 498-509.—Par. & Perugia, 1890, 7.—Pratt, 1900a, 656, fig. 37, 657.—Scott, 1901, 148, pl. 8, fig. 4 (in *Merluccius merluccius*; Aberdeen); 1905, 117.—Staff., 1904, 482 (gills of *Merluccius bilinearis* Mit.; Canada).

merluccii Tasch., 1879, 247 (for *merluccii*).—Braun, 1900a, 419, 453, 510, 536, 548, 551.—Hoyle, 1890, 539.—Mont., 1888, 7, 8.—Sons., 1895, 118, 119, 120.

(A POBLEMA) Duj., 1845a, 383, 389, 420, as subg. of Dist.; raised to generic rank by E. Bl., 1847, 302. See *Apoblema* and *Hemirurus*. Type *appendiculatum*.

affine (Rud., 1819) Stoss., 1886, 44.—See *Derogenes*.

apertum (Rud., 1819) Duj., 1845a, 422.

appendiculatum (Rud., 1802) Duj., 1845a, 420-421.—Braun, 1891d, 423. See *Apoblema*.

caudiporum (Rud., 1819) Duj., 1845a, 422. See *Lecithochirium*.

crenatum (Mol., 1859) Stoss., 1886, 58. See *Apoblema*.

excisum (Rud., 1819a) Stoss., 1886, 58. See *Apoblema*.

grandiporum (Rud., 1819a) Stoss., 1886, 63. See *Apoblema*.

labri rupestris (Olss., 1876) Stoss., 1886, 51.

mollissimum (Levin., 1881) Stoss., 1886, 58. See *Apoblema*.

ocreatum (Rud., 1802) Duj., 1845a, 422-423.—Type of *Pronopyge*, 1899. See *Apoblema*.

raynerianum (Nardo, 1827) Stoss., 1886, 58.

rufoviride (Rud., 1819a) Duj., 1845a, 421. See *Apoblema*.

tornatum (Rud., 1819a) Duj., 1845a, 421-422. See *Apoblema*.

ventricosum (Rud., 1819) Stoss., 1886, 59. See *Apoblema*.

APOBLEMA (Duj., 1845) E. Bl., 1847, 302-303 (*appendiculatum*).—Bettend., 1897a, 17; 1897, 32i.—R. Bl., 1891, 609.—Brand., 1891b, 267; 1891d, 19, 20.—Braun, 1891d, 423; 1892a, 570, 590, 603, 608, 641, 682, 710, 713, 715, 720, 721, 744; 1892h, 728, 729; 1893a, 838, 879, 885, 886, 890, 893, 894, 909, 911; 1895, 128, 138; 1899, 3; 1900h, 3.—Dies., 1850a, 331 (syn. of Dist.).—Hausmann, 1897b, 38.—Juel, 1889a, 46 pp., figs. 1-18 (anatomy); 1889b, 46 pp., figs. 1-18; 1890a, pp. 54-55.—Kath., 1894a, 130.—Looss, 1894a, 122, 129, 142, 170, 200, 201, 204, 224; 1894d, 42; 1896b, 122, 123, 125, 127, 134; 1899, 527, 535, 538, 542, 582, 637, 638, 729; 1902, 756, 839.—Luehe, 1900, 509; 1901, 394, 484.—Mont., 1888a, 92, 105; 1891d, 496, 522, 1 pl.; 1891e, 32 pp., 17 figs.; 1892, Oct. 7, 214 (gen. of Distominæ); 1891h, 742; 1893, 6, 27, 33, 34, 43, 53, 61, 84, 85, 86, 88, 90, 107, 123, 149, 151, 152, 153, 154, 182.—Nickerson, 1902, 609.—Ofenheim, 1900, 156, 179, 181.—Pratt, 1898, 352, 368, 375.—Stiles, 1901, 177, 178, 189.—Stiles & Hass., 1898a, 83, 90, 91 (syn. of *Hemirurus*).—Stoss., 1892, 4; 1898, 27. See *Hemirurus*.

1904: *Apoplema* Linst., 1904, 252, misprint.

appendiculatum (Rud., 1802) E. Bl., 1847, 302-303, pl. 12, fig. 3.—Barbagallo & Drago, 1903, 409 (in *Lichia amia*, *Lophius piscatorius*, Cantania; *Scomber colias*, S. *scomber*).—Braun, 1892a, 714.—Dies., 1850a, 371 (to Dist.).—Juel, 1889, 4, 5, 7, 8, 13, 19, 22, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 39, 41, fig. 17.—Lander, 1904a, 4, to (*Hemirurus*). 7, 14.—Looss, 1894a, 224; 1896, 123, 124, 125, 131-140, pl. 9, figs. 88-90 (in *Alosa finta*; Cairo).—Luehe, 1901, 396, 397, 399, 400.—Mont., 1891, 501, 502-508, 513, 516, 517, 518, 520, 521 (syns. D. app. Dies., 1858, D. *ventricosum* Wagener, 1860, D. *ocreatum* Olsson, 1868); 1891, 9; 1891, 502; 1891, 11, 12; 1893, 27, 61, 84, 95, 191, pl. 1, fig. 3.—Mueh., 1898, 21.—Odhn., 1905, 350, 351.—Par., 1902, 5 (in *Clupea alosa*, *Scomber colias*, S. *scomber*).—Pratt, 1898, 351-358, 3 pls. (anat., life history); 1900, 371.—Stoss., 1898, 28-29.—Also reported for *Acipenser sturio*, *Trutta salar*, *Pseudocalanus elongatus*.

APOBLEMA—Continued.

crenatum (Rud., 1802) Juel, 1889, 5, 7, 34.—Mont., 1893, 95.—Stoss., 1898, 27–28.
crenatum of Mol.—Juel, 1889, 5, 7, 34.—Mont., 1891, 520, 522; 1893, 95.—
 Stoss., 1898, 27–28 (in *Merlucius esculentus*; Trieste).

excissum Mont., 1891, 520 (for *excisum*).

excisum (Rud., 1819) Juel, 1889, 5, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 38, 39, 40, 41, figs. 1–16.—Braun, 1892, 48; 1892a, 607, 609, 711, 713, 744; 1892h, 728, 729.—Lander, 1904a, 7, 21, 24.—Looss, 1894a, 173, 210, 216, 224; 1896b, 133.—Luehe, 1898, 624.—Mont., 1891, 503, 517, 520 (*excissum*), 521, 522; 1893, 6, 7, 95.—Pratt, 1898, 356.—Par., 1902, 5 (in *Scomber colias*, *S. scomber*), 375.—Stoss., 1898, 28.

grandiporum Mol. See Mont., 1891, 521.

grandiporum (Rud., 1819a) Juel, 1889, 6, 7, 23, 29, 34.—Looss, 1896b, 123; 1899, 641 (to *Hemiusurus*).—Mont., 1891, 520.

labri rupestris (Olss., 1876) Mont., 1891, 518, 522.

microporum (Mont., 1889) Mont., 1891, 516, 521.

mollissimum Mont., 1893, 96 (for *mollissimum*).

mollissimum (Levin., 1881) Juel, 1889, 6–7, 29, 34.—Jacoby, 1900, 3.—Lander, 1904a, 14, 20 (to *Hemiusurus*).—Looss, 1896b, 121–130, 136, pl. 9, figs. 85–87 (in *Alosa finta*); 1899b, 641 (to *Hemiusurus*), 728 (*H. bothryophorus*) (in *Alosa finta*; Egypt).—Mont., 1891, 520 (*mollissimum*), 521 (*mollissimum*); 1893, 95, 102, 105.—Odhm., 1905, 359 (of Looss, 1896, as syn. of *Lecithaster confusus*).—Ofenheim, 1900, 179.—Staff., 1904, May 3, 484 (of Levin., as syn. of *Lecithaster bothryophorus*).—Stoss., 1898, 29–30.

mollissimum Mont., 1891, 521 (for *mollissimum*).

mollissimum Mont., 1891, 520 (for *mollissimum*).

ocreatum (Olss., 1868 nec Rud.) Mont., 1891, 520.

ocreatum (Rud., 1802a) Juel, 1889, 4–5, 7, 31, 33, 34, 40.—Braun, 1891d, 423; 1892a, 643.—Lander, 1904a, 1 (of Juel, syn. of *Hemiusurus crenatus* (Rud.)).—Looss, 1899b, 639 (=Dist. *carolinæ* Stoss., type of *Pronopyge*, 1899).—Luehe, 1901, 399.—Mont., 1891, 15; 1891, 501, 508–512, 514, 516, 521, pl. 4, figs. 1, 5, 7, 10, 11, 14, 15c (syns. *D. ventricosum* Ben., *D. carolinæ* Stoss., 1889); 1893, 508; 1893, 61, 84, 95, 98, 99, 102, 191, pl. 1, fig. 16.—Pratt, 1898, 352.—Stoss., 1898, 29.

rufoviride (Rud., 1819) Juel, 1889, 6, 7, 8, 13, 19, 22, 23, 24, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 39, 41, fig. 18.—Barbagallo & Drago, 1903, 409 (in *Anguilla vulgaris*, *Conger vulgaris*; Catania).—Braun, 1892a, 711.—Jacoby, 1900, 3.—Lander, 1904a, 7.—Looss, 1894a, 224.—Mont., 1891, 520, 521; 1893, 53, 95, 191, pl. 1, fig. 5.—Par., 1902, 5 (in *Anguilla vulgaris*, *Conger vulgaris*, *Nettastoma melanura*, *Rhombus laevis*, *Saurus griseus*, *Trigla cuculus*).—Stoss., 1898, 29.

scabrum (Mueller, 1788) Juel, 1889, 5.—Mont., 1891, 520.

sluiteri (Brock, 1886) Braun, 1892, 48; 1892h, 729; 1893b, 179.—Looss, 1894a, 234 (to *Euryælum*, type).

stossichi Mont., 1893, 87 (for *stossichii*).

stossichii Mont., 1891, 501, 502, 512–516, 520, 521, pl. 4, figs. 2, 3, 4, 8, 9, 13, 15a, 16, 17 (syn. Dist. *ocreatum* Mont., v. 1, p. 87 (in *Clupea aurita* Cuv., *C. pilchardus* Wall.); 1891, 19 (*D. ocreatum* p. p.); 1893, 53, 61, 95, 96.—Barbagallo & Drago, 1903, 410 (*stossichi*) (in *Alosa sardina*; Catania).—Jacoby, 1900, 3.—Luehe, 1901, 399.—Odhm., 1905, 351.—Stoss., 1898, 30.

tornatum (Rud., 1819) Juel, 1889, 6, 29, 31, 34, 40.—Looss, 1896, 125.—Mont., 1891, 516, 520, 521; 1893, 95.

ventricosum (Rud., 1819) Mont., 1893, 191.

[APOLEMA Hulst, see Zool. Rec., 1896, v. 33, Ins. 250.]

APOPLEMA Linst., 1904, 252 (for *Apoplema*).

APOROCOTYLE Odhn., 1900, 62–66 (m. simplex).

simplex Odhn., 1900, 62–66, 1 fig. (on gills of *Pleuronectes flesus* and especially *Pl. limanda*, the latter given as type host; Kristineberg, Sweden).—Mont., 1903, 335.

ASCOCCELI Burm., 1837, 531.—Braun, 1890a, 515 (includes *Gyrodactylus*, *Hirudine*).—Mont., 1888, 83.—Tasch., 1879, 233.

ASCOCOTYLE Looss, 1899b, Dec., 584–585, 586, 611 (tod. coleostoma); ὁ ἄσκος, Schlauch; ἡ κοτύλη, Napi; 1902m, 441, 824, 832, 833.—Braun, 1902b, 30.—Jægers., 1903a, 14.—Pratt, 1902a, 888, 894 (key).

coleostoma (Looss, 1896) Looss, 1899b, 582, 585, 699.

minuta Looss, 1899b, 585, 698–699 (in middle portion of small intest. of dogs and cats, in Cairo, Egypt, and in intest. of *Ardea cinerea* at Damietta; probably contracted from eating fish), 700, 701, fig. 23; 1901, 205.

ASPIDOBOTHRIA Mont., 1888, 91 (f. for *Aspidogaster*); 1892, Oct. 7, 195.—Braun, 1893b, 188.

ASPIDOBOTHRIDÆ Mont., 1888, 51 (*Aspidobotridæ*), 63, 67 (*Aspidobothridæ*), 71, 72, 90, 91 (*Aspidobotridæ*), 103, 107, 108; 1892, Oct. 7, 168 (revision), 195, 196, 197, 198 (diagnosis), 199 (key), 198–209, 213 (f. of *Aspidocotylea*); 1893, 36, 82, 114.—Braun, 1893a, 886, 888, 890, 891, 894, 895; 1893b, 188.—Gamb., 1896a, 73.—Kofoid, 1899, 179.—Nickerson, 1901, Mar. 8, 378; 1902, 597, 599, 606, 608, 612, 613, 614, 616.—Poche, 1907, 125.—Pratt, 1902a, 887, 891 (key; contains: *Macraspis*, *Stichocotyle*, *Aspidocotylus*, *Platyaspis*, *Cotyaspis*, *Cotylogaster*, *Aspidogaster*, *Lophotaspis*).—Stoss., 1898, 19 (*Aspydobothridæ*), 1899, 3, 4.

ASPIDOBOTHRII Burm., 1856a, 252.—Braun, 1890a, 516; 1893b, 188.—Mont., 1888, 84, 107.—Poche, 1907, 125.—Tasch., 1879, 233, 258.

ASPIDOBOTRIDÆ Mont., 1888, 52, 63, 91 (for *Aspidobothridæ*); 1892, Oct. 7, 213 (f. of *Aspidocotylea*).

ASPIDOCOTYLEA Mont., 1892, Oct. 7, 213 (suborder of Trematoda, for *Aspidobothridæ*).—Braun, 1893a, 890, 891, 894, 895, 917; 1893b, 188; 1895, 136.—Gamb., 1896, 73.—Kofoid, 1899, 179.—Looss, 1899, 543.—MacCallum, 1902, 636.—Odhn., 1902, 43, 44, 45.—Pratt, 1900a, 645, 646 (included in *Digena* of Ben.), 647 (key); 1902a, 887, 891 (key).—Schneidemuehl, 1896, 295.—Ward, 1903, 864.

1896: *Aspidocotylea* Schneidemuehl, 1896, 295.

ASPIDOCOTYLE Dies., 1850a, 288, 413 (m. mutabile) for *Aspidocotylus*; 1858e, 314, 372.—Braun, 1890a, 546; 1893a, 887, 888, 890, 891, 892, 895, 904 (g. of *Amphistomidæ*), 907, 918; 1893b, 188.—Burm., 1856a, 251.—Hoyle, 1890, 539.—Kofoid, 1899, 181.—Looss, 1902, 428.—Mont., 1888a, 89, 91; 1892, 207; 1892, Oct. 7, 196, 197, 198, 213 (g. of *Aspidobothridæ*).—Nickerson, 1902, 612.—Pratt, 1900a, 647.—Tasch., 1879, 256, 259–260.

1892: *Aspidocotyle* Mont., 1892, Oct. 7, 197, misprint.

cochleariforme (Dies., 1838) Mont., 1892, Oct. 7, 207–208, fig. 6 (in *Cichla temensis*; Rio Negro, Brazil) (syn. mutabile).

mutabile (Dies., 1839) Dies., 1850a, 413 (int. of *Cataphractus* n. sp.; Rio Negro, Brazil) (includes *A. cochleariformis* as syn.).—Braun, 1893a, 907 (in *Cichla temensis*; Brazil).

mutabilis (Dies., 1839) Dies., 1858e, 372 (in *Cichla temensis* Humboldt).—Tasch., 1879, 256, 260 (syns. *Aspidocotylus cochleariformis* Dies., *A. mutabilis* Dies.) (in *Cataphractus* sp.; Rio Negro).

[ASPIDOCOTYLEEN Looss, 1902m, 418. German name.]

ASPIDOCOTYLUS Dies., 1838a, 189; 1839a, 234 (m. mutabilis); 1850a, 413, renamed *Aspidocotyle*.—Braun, 1892a, 568; 1893a, 879, 884.—Cobbold, 1877i, 326; 1877, 235, 237, 238; 1879b, 360.—Crep., 1841, 82.—Duj., 1845a, 479.—Lejtenyi, 1881a, 2.—Nord., 1840, 601.—Pratt, 1902a, 887, 891 (key).

1850: *Aspidocotyle* Dies., 1850a, 288, 413 (m. mutabile).

cochleariformis Dies., 1838a, 189 (in *Cataphractus* N. 150); 1839a, 234; 1850a, 413 (syn. of *Aspidocotyle mutabile*).—Cobbold, 1877, 237.—Mont., 1892, Oct. 7, 207 (to *Aspidocotyle*).—Tasch., 1879, 260 (syn. of *Aspidocotyle mut.*).

mutabilis Dies., 1839a, 234, pl. 15, figs. 20–22 (in *Cataphractus*; Rio Negro, Brazil) *A. cochleariformis*, renamed; 1850a, 413 (to *Aspidocotyle*); 1858e, 372.—Braun, 1892a, 580.—Cobbold, 1877, 237, 238; 1879b, 360.—Crep., 1841, 82.—Duj., 1845a, 479.—Mont., 1892, Oct. 7, 207 (syn. of *Aspidocotyle cochleariforme*).—Nord., 1840, 601 (in *Cataphractus* sp.; Amériq. méridion.).—Tasch., 1879, 260 (to *Aspidocotyle*).

sonsinoii (Cobbold, 1877) Cobbold, 1877e, 238, to *Gastrodiscus*.

ASPIDODASTER Mont., 1892, Oct. 7, 213, misprint for *Aspidogaster*.

ASPIDOGASTER Baer, 1826a, 124; 1827b, 525-557 (m. conchicola); 1828e, 671-678.—Ben., 1858a, 1861a, 11, 172, 345; 1882b, 14, 15, 16.—Bettend., 1897, 339.—Blainv., 1828, 584-585.—Blochmann & Bettend., 1895a, 216, 217.—Braun, 1890a, 480, 515, 516; 1890b, 127; 1892a, 568, 576, 586, 603, 614, 660, 671, 672, 673, 675, 688, 689, 704, 709, 711, 715, 716, 730, 731, 757, 758, 774, 775, 777, 779, 792, 843, 879, 884, 886, 887, 888, 889, 890, 891, 894, 896, 897, 917; 1893b, 177, 178, 179, 187, 188; 1894a, 1149; 1895, 26, 125.—Burm., 1837, 530; 1856a, 240, 252.—Carus, 1863, 478.—Cobbald, 1877, 238.—Crep., 1839, 285-286.—Dies., 1835c, 427; 1839a, 234; 1850a, 288, 414; 1858e, 314, 372-373; 1859c, 438.—Duj., 1845a, 324.—Eichwald, 1829a, 248.—Frap., 1880c, 418, 443, 445.—Gamb., 1896, 63, 73.—Goldb., 1855a, 18.—Hoyle, 1890, 539.—Jackson, 1888, 642, 643, 646, 654.—Kofoid, 1899, 180, 181, 182, 183, 184.—Lander, 1904a, 5, 10.—Leuck., 1863, 489; 1879, 93, 119, 150, 151; 1886d, 70, 90, 117.—Looss, 1893b, 814; 1894a, 212; 1901, 625; 1902m, 428, 429, 430.—Mont., 1888, 12, 37, 38, 40, 43, 52, 56, 57, 63, 68, 71, 72 (Aspidogaster), 83, 84, 89, 91, 95, 103, 107; 1891, 121; 1892, Oct. 7, 170, 172, 175, 176, 180, 184, 185, 186, 187, 188, 189, 194, 195, 196, 197, 198, 199-205, 199 (syns.: Monost. Rud., 1819a, 87; Aspidonotus Keber, 1851; Cotylaspis Leidy, 1857, 18), 199 (diagnosis), 200 (key), 213 (g. of Aspidobothridæ); 1893, 36, 111.—Moul., 1856a, 235.—Nickerson, 1902, 599, 603, 604, 605, 609, 610, 612, 614, 617, 619.—Nord., 1840, 620 (1. conchicola; 2. limacoides).—Pag., 1857, 6.—Par., 1894, 140.—Poche, 1907, 125.—Poir., 1885, 102; 1886, 20, 21.—Pratt, 1902a, 887, 892 (key).—Raspail, 1829, v. 22, 556-564.—Shipley, 1904, in 77-106.—Staff., 1900, 405, 412; 1903, 824.—Stoss., 1899, v. 19, in 1-6, 1. pl.—Tasch., 1879, 233, 255, 258 (syns. Monost. Rud., Aspidonotus Keber).—Volz, 1899, 232.—Wagener, 1857, 25, 29.—Wallenstedt, 1847, 7.

1851: Aspidonotus Keber, 1851a, 19 (m. conchicola).

1888: Aspidogaster Mont., 1888, 72, misprint.

1892: Aspidodaster Mont., 1892, Oct. 7, 213, misprint.

ascidiæ Dies., 1858e, 373 (in *Mentula marina*, by Redi), sp. inq., based on Baer, 1827b, 549 (Redi's worm in *Ascidia mentula*).

cochleariformis (Dies., 1838) Cobbald, 1879b, 360 (syn. of *Cotylegaster cochleariformis*), lapsus, see *Gastrodiscus sonsinoii*.

conchicola Baer, 1826a, 124 (in *Anodonta*, Unio; Prussia); 1827b, 527-557, pl. 28; 1828, 671-678.—Aubert, 1855, 349-376, pls. 14-15 (anat., development).—Ben., 1858a, 1861a, 206, 210.—Bettend., 1897a, 25.—Blainv., 1828a, 584.—Blochmann & Bettend., 1895a, 216.—Braun, 1883a, 41; 1892a, 579, 592, 597, 598, 602, 631, 632, 637, 639, 640, 641, 642, 645, 655, 677, 678, 679, 687, 693, 699, 707, 712, 713, 715, 725, 731, 747, 749, 776, 780, 783, 790; 1893a, 841, 869, 870, 880, 883, 891, 897; 1893b, 183 (in *Vivipara unicolor*; *Cleopatra bulimoides*); 1893d, 468.—Burm., 1837, 530.—Crep., 1839, 286.—Dies., 1834a, 1231; 1835c, 423, 427; 1858e, 373 (in *Unio purpureus*, *U. nasutus*, *U. radiatus*, *U. cariosus*, *U. pictorum*, *Anodonta marginata*, *A. anatina*); 1859c, 438.—Duj., 1845a, 324-327.—Eichwald, 1829a, 248.—Fil., 1855b, 20; 1857c, 22, 27.—Frap., 1880c, 418.—Gamb., 1896a, 63.—Gronkowski, 1902a, 515 (8) (conchicole).—Hoyle, 1890, 539, fig. 3f, 540 (description).—Jackson, 1888, 650.—Jägers., 1899, 203.—Kath., 1894a, 131.—Keber, 1851a, 19, 90.—Kofoid, 1899, 179, 180, 181, 182, 183, 184, 185.—Kuech., 1855, 184, 185; 1856c, 277.—Leidy, 1851b, 224; 1856b, 45; 1857a, 18; 1858a, 110 (*Anodonta fluviatilis* and *A. lacustris*; *Phila.*); 1877f, 260; 1904a, 53, 88, 108, 110, 111, 148.—Leuck., 1879, 149, figs. 48, 74; 1886d, 115, figs. 48, 74.—Looss, 1894a, 203; 1901, 624; 1902m, 420, 428.—Maclaren, 1904, 609.—Mont., 1888, 40, 43 (conchiola); 1891, 100, 103, 109, 121; 1892, Oct. 7, 172, 186, 188, 191, 195, 197, 198, 200-202, 203, fig. 2 (extensive bibliography); 1893, 111, 114.—Moul., 1856a, 13 (conchycola), 25, 144.—Mueh., 1898, 11.—Nickerson, 1902, 606, 614, 620 (in *Unionidæ*; Europe and N. America).—Nord., 1832a, 38; 1840, 603.—Odhn., 1902, 44, 45.—Pag., 1857, 35-36, pl. 4, figs. 1-5 (in *Anodonta anatina*).—Poir., 1886, 21.—Sieb., 1836, 217; 1836, 233; 1837, 263; 1838, 143, 144, 156.—Shipley & Hornell, 1904, 95, 98.—Staff., 1895, 22 July, 282-284; 1895, Oct., 536; 1896, 6 July, 477-542, pls. 36-39 (anat.); 1898, 698.—Steenstrup, 1842, 55.—Stoss., 1899, 3.—Tasch., 1879, 258-259 (syn. *Aspidonotus conchicola* Keber).—Voeltzkow, 1888, v. 8, 249-289, pls. 15-20.—Wagener, 1857, 25, 99, pl. 16, figs. 1-3; 1858, 383.

conchicole Gronkowski, 1902a, 515, for *conchicola*.

conchilega Braun, 1883a, 41, for *conchicola*.

conchiola Mont., 1888, 40, 43, for *conchicola*.

ASPIDOGASTER—Continued.

conchicola Dies., 1850a, 414 (for *conchicola*).

elegans (Ols., 1868) Mont., 1891, 122 (see 1888, 91); 1892, Oct. 7, 196.

insignis (Leidy, 1858) Braun, 1893a, 897.—Kofoid, 1899, 184.—Shipley & Hornell, 1904, 98.

lenoiri Poir., 1886, 20–22, pl. 1, figs. 1–3 (in *Tetrathyra vaillantii*; Sénégal).—Braun, 1892a, 580, 716; 1893a, 888, 891; 1893b, 188.—Kofoid, 1899, 181, 182, 184.—Mont., 1888, 42; 1891, 121, 122; 1892, Oct. 7, 198; 1893, 111.—Nickerson, 1902, 613.—Sons., 1896, 294.—Stoss., 1899, 4.

lenoirii Mont., 1888, 16, 38, 53, 54, 60, 71, 107 (for *lenoiri*).

limacoides Dies., 1834a, 1231; 1835c, 420–430, 1 pl., figs. 1–19 (in *Cyprinus dobula*, C. idus); 1850a, 414–415 (intest. of *Leuciscus idus*, L. *dobula*); 1858e, 373.—Braun, 1892a, 580; 1893a, 897.—Crep., 1839a, 286.—Duj., 1845a, 327.—Jackson, 1888, 650.—Kofoid, 1899, 184.—Kroyer, 1846–53a, 462 [671] (in *Leuciscus idus*).—Looss, 1902m, 420.—Mont., 1888, 71; 1891, 109, 121, 122; 1892, Oct. 7, 172, 195, 200, 202–203, fig. 3; 1893, 114.—Nickerson, 1902, 620 (in *Leuciscus* sp.; Europe).—Nord., 1840, 603.—Shipley & Hornell, 1904, 98.—Stoss., 1899, 3.—Tasch., 1879, 259 (in *Leuciscus idus*, L. *dobula*).—Voeltzkow, 1888, v. 8, 290–292.

macdonaldi Mont., 1891, 120; 1892, Oct. 7, 200, 203–204, fig. 4 [in Melo; Shark Bay, Australia].—Braun, 1893a, 870, 897; 1893d, 468.—Looss, 1901, 625; 1902m, 429, 430 (probably belongs to *Lophotaspis*).—Nickerson, 1902, 604, 620 (in Melo; Australia).—Shipley & Hornell, 1904, 98.—Stoss., 1899, 3.

macdonaldii Mont., 1891, 121, 122, for *macdonaldi*.

margaritifera Shipley & Hornell, 1904, 78, 90, 95–98, pl. 4, figs. 60–62, 66, 68, 69 (*Margaritifera vulgaris*; at Cheval Paar, Ceylon); 1905, 55.

ringens Lint., 1905, 327, 333, 367, 397, figs. 243–249 (in *Micropogon undulatus*, *Trachinotus carolinus*; Beaufort, N. C.).

sp. Braun, 1892a, 595.

vallei Stoss., 1899, 3–4, figs. 6–8 (in *Thalassochelys caretta*, at Corfù).—Looss, 1902m, 415, 418 (to *Lophotaspis* as type) (stomach of *Thalassochelys corticata*; Egyptian coast), 746.

ASPIDOGASTRIDE Poche, 1907, 125.

ASPIDOKOTYLEA Schneidemuehl, 1896, 295 (for *Aspidocotylea*).

ASPIDONOTUS Keber, 1851a, 19–20, 65, 66, 69, 90 (new name for *Aspidogaster*, hence type *conchicola*).—Braun, 1893a, 896.—Mont., 1892, Oct. 7, 199 (syn. of *Aspidogaster*).—Tasch., 1879, 258 (syn. of *Aspidogaster* Baer).

conchicola (Baer, 1826) Keber, 1851a, 19, 65, 66, 69, 90; 1854, 45.—Dies., 1858e, 373 (to *Aspidogaster*).—Mont., 1892, Oct. 7, 200, 201 (to *Aspidogaster*).—Tasch., 1879, 259 (to *Aspidogaster*).

ASPIDOCOTYLE Mont., 1892, Oct. 7, 197 (for *Aspidocotyle*).

ASPIDOGASTER Mont., 1888, 72, misprint for *Aspidogaster*.

ASPYLOGASTER Mont., 1892, Oct. 7, 187 (for *Cotylogaster*).

ASTIA Looss, 1899b, 590–591, 592 (tod. *renifera*) [not *Astia* Koch, 1879, Arach.; *Astea*, *Asteia*, *Asteja*], ἀστειός, feingebildet; 1900, 602 (renamed *Astiotrema*).—Braun, 1901b, 37.—Pratt, 1903, 34.

impleta Looss, 1899b, 590, 703–705, fig. 26 (intestine of *Tetrodon fahaka*; in Nile, at Cairo, Egypt).—Braun, 1901b, 37.—Luehe, 1900, 561.

renifera (Looss, 1898) Looss, 1899b, 590.

ASTIOTREMA Looss, 1900, Dec. 3, 602, 607, *Astia* Looss, 1899 [not Koch, 1879, Arach.], renamed, hence type *renifera*; 1901, 560; 1902, 487, 505, 821.—Pratt, 1902a, 888, 899 (key).

erinacea (Poir., 1886) Stoss., 1904, 2 (in *Delphinus delphis*).

impleta (Looss, 1899) Stoss., 1904, 2 (in *Tetrodon fahaka*).

monticellii Stoss., 1904, 2–3, fig. 3 (in *Tropidonotus viperinus*; Naples).

renifera (Looss, 1898) Stoss., 1904, 2 (in *Trionyx nilotica*; Egypt).—Staff., 1905, Apr. 11, 693 (in *Trionyx nilotica*).

ASTOMUM Schlotthauber, 1860, 129 (m. *poricola*).

poricola Schlotthauber, 1860, 129 (in *Anas boschas*).

ASYMPHYLODERA Kowal., 1902d, 26 [8], misprint for *Asymphylodora*.

perlata (Nord., 1832) Kowal., 1902d, 26 (8).

ASYMPHYLODORA Looss, 1899b, Dec., 598-599 (tod. perlata); *ἀσυμφύλος*, unlike; *ἡ δορά*, skin; 1902, 760.—Luehe, 1900, 487; 1901, 488.—Ofenheim, 1900, 183.—Pratt, 1902a, 888, 902 (key) (related to Haplometrinæ).

1902: Asymphylodera Kowal. 1902d, 26, [8].

exspinosa (Hausmann, 1896) Looss, 1899b, 598, 599.

imitans (Mueh., 1898) Looss, 1899b, 598.

perlata (Nord., 1832) Looss, 1899b, 598, 599.—Odhn., 1905, 322.

ATHESMIA Looss, 1899b, Dec., 635-637 (m. heterolecithodes) [not Athetmia 1816, lepidopteron]; *ἀθέσμιος*, gesetzlos.—Braun, 1901b, 34; 1901h, 702.—Pratt, 1902a, 889, 904 (key).—Stiles, 1901, 189.

heterolecithodes (Braun, 1899) Looss, 1899b, 635; 1902, 789.—Braun, 1901h, 702.—Engler, 1904, 186.—Hollack, 1902a, 867, 868.

AURIDISTOMUM Staff., 1905, Apr. 11, 690-691 (m. chelydræ); auris, ear.

chelydræ (Staff., 1900) Staff., 1905, 690 (in Chelydra serpentina; Canada).

AXIME Moul., 1856a, 10, misprint.—Cosmovici, 1887a, 127 (for Axime).

AXINE Abildg., 1794, 59-60 (m. belones) [not Oken, 1835, crustacean].—Ben., 1856c, in 643-654, 1 pl., figs. 1-21; 1858a, 1861a, 11, 52, 345.—Ben. & Hesse, 1864, 6, 96.—Braun, 1890a, 407, 414, 416, 420, 426, 437, 445, 448, 451, 453, 454, 458, 463, 468, 469, 483, 484, 485, 490, 492, 494, 498, 511, 515, 516, 517, 518, 523, 540, 541, 546; 1890b, 125; 1891d, 422.—Burm., 1837, 530; 1856a, 251.—Carus, 1863, 478.—Cerf., 1895h, 91; 1896, 514.—Cosmovici, 1887a, 127 (Axime).—Crep., 1839, 291.—Dies., 1850a, 290, 424, 425; 1858e, 315, 385-386.—Duj., 1845a, 317.—Gamb., 1896, 56, 73.—Goldb., 1855a, 19.—Goto, 1891a, 161, 169, 178, 183, 184; 1891c, 103; 1893a, 798.—Haswell, 1892a, 459; 1892b, 149; 1893e, 114.—Hoyle, 1890, 537, 539.—Ijima, 1884c, 638, 639.—Jackson, 1888, 642, 644, 645, 646, 647, 648, 654.—Juel, 1889, 33.—Kath., 1894a, 143, 152, 155.—Kerbert, 1881a, 573.—Kroyer, 1846-53a, 273; 1852-53a, 1221 (in Belone rostrata Fab.).—Looss, 1885b, 5, 10, 15, 17, 18; 1892, 72.—Lorenz, 1878a, in 405-436, pls. 31-33.—Mont., 1888, 11, 15, 34, 40, 52, 53, 59, 60, 61, 66, 83, 84, 86, 89, 101; 1893, 111; 1903, 336 (subf. Axininæ).—Moul., 1856a, 10 (Axime).—Par. & Perugia, 1890, 13.—Pratt, 1900a, 646, 653 (key), 657, fig. 40.—St.-Remy 1898, 562-563.—Stoss., 1898, 14.—Tasch., 1879, 40, 45, 56, 58, 61, 66, 69; 1879, 233, 255-256 (syn. Heteracanthus Dies.).—Wallenstedt, 1847, 7.—Ziegler, 1883, 557.

1856: Axime Moul., 1856a, 10.

aberrans Goto, 1894a, 198-199, pl. 7, figs. 5-6 (in Belone schismatorhynchus; Hagi, Japan).—St.-Remy, 1898, 563.

belones Abildg., 1794d, 59-60, pl. 6, fig. 3, a-b (in Belone acus).—Ben., 1856a; 1856c; 1857i; 1858a, 1861a, 52-54, 168, 169, 196 (in Esox belone); 1870, 80.—Blainv., 1828a, 568.—Braun, 1889k, 621; 1890a, 418, 424, 428, 436, 437, 443, 472, 477, 488, 494, 514, 541, 549, 550; 1891a, 52.—Crep., 1838b, 83-96 (syns. Heteracanthus pedatus, H. sagittatus); 1839a, 291; 1839, 163.—Dies., 1850a, 425 (syns. Heteracanthus pedatus, H. sagittatus); 1858e, 385-386; 1859c, 444.—Duj., 1845a, 317.—Goto, 1894a, 196.—Hoyle, 1890, 539, 540.—Juel, 1889, 36.—Kath., 1894a, 155.—Kroyer, 1846-53a, 273 (in Belone rostrata).—Lorenz, 1878, —.—Mont., 1888, 8, 15; 1890, 422; 1893, 111.—Moquin-Tandon, 1846, 13, 395.—Nord., 1840, 598 (syn. of Heteracanthus pedatus Dies.) (in Esox belone).—Oken., —, 357, pl. 10.—Par., 1902, 3 (in Belone acus, Exocoetus volitans; Portoferrajo).—Par. & Perugia, 1890, 8.—Sieb., 1839, 163.—Stoss., 1890, 44; 1890, 52; 1898, 14.—Tasch., 1879, 35; 1879, 256 (syns. Axine orphii Ben. & Hesse, Heteracanthus pedatus, H. sagittatus Dies.) (in Belone acus).—Ziegler, 1883, 545.—Also reported for Belone vulgaris.

heterocerca Goto, 1894a, 197-198, pl. 7, figs. 1-4, pl. 8 (on Seriola quinqueradiata; Japan).—Pratt, 1900a, 657, fig. 40.—St.-Remy, 1898, 563.

orphii Ben. & Hesse, 1863, 116; 1864, 116-117, pl. 12, figs. 19-27 (in Esox belone).—Braun, 1890a, 418.—Tasch., 1879, 256 (syn. of A. belones).—Also reported for Belone vulgaris.

platyura Crep., 1838b, 83 (syns. A. belones, Heteracanthus pedatus, H. sagittatus).—Sieb., 1839, 163.

triangularis Goto, 1894a, 200-201, pl. 7, figs. 7-8 (on Acanthias schlegelii; Misaki, Japan).—St.-Remy, 1898, 563.

trigla Ben. & Hesse, 1863, 117; 1864, 117 (Trigla hirundo).—Braun, 1890a, 418, 541, 549 (Brest), 552.—Tasch., 1879, 256 (in T. hirundo).

AXININE Mont., 1903, 336 (subf.; f. Microcotylidae).

AZIGIA Staff., 1904, May 3, 488, misprint for Azygia.

tereticolle (Rud., 1802) Staff., 1904, 488 (*Esox lucius*, *Lota maculosa*, *Ameiurus nigricans*; Canada).

AZYGIA Looss, 1899b, Dec., 569-570, 579, 580 (m. *tereticollis*); ἄζυγος, unverbunden; 1902, 839.—Braun, 1901b, 33.—Darr, 1902, 667.—Luehe, 1900, 489, 490.—Marshall & Gilbert, 1905, 477, 484.—Odhn., 1905, 328.—Pratt, 1902a, 888, 897 (key).—Staff., 1904, May 3, 483, related to *Otodistomum*, 489.—Stoss., 1904, 199.

1904: *Azigia* Staff., 1904, May 3, 488, misprint.

loossii Marshall & Gilbert, 1905, 483-485, pl. 15, figs. 5-7 (*Micropterus salmoides*, *Lucius lucius*, *Amia calva*).

tereticollis (Rud., 1802) Looss, 1899b, 570; 1901, 119; 1902, 456, 457.—Cohn, 1902k, 47.—Darr, 1902, 688.—Heymann, 1905, 85.—Kowal., 1902d, 26 (8) (in *Perca fluviatilis*); 1904, 24 (9) (in *Esox lucius*; Galicia).—Luehe, 1900, 491.—Marshall & Gilbert, 1905, 484, 485.—Odhn., 1905, 363.—Staff., 1904, 488.—Ward, 1903, 861.—Reported for *Esox lucius* L., *Lota maculosa* Le S., *Ameiurus nigricans* Le S.

BALANORCHIS Fischder., 1901, 374-375 (m. *anastrophus*); 1902a, 49-50; 1903h, 490.—Pratt, 1902a, 887, 893 (key).—Shipley, 1905, 8.

anastrophus Fischder., 1901, 375 (*Cervus dichotomus*); 1902a, 50-52, fig. 4 (syn. *Amphist. conicum* Dies., 1835 e. p.) (in *C. dichotomus*; Brazil).

BARIS Looss, 1899b, Dec., 669-670 (m. *proteus*) [not *Baris* Germ., 1817, *coleopteron*]; ἡ βαρις, ägyptischer Nachen; 1900d, 602 (renamed *Deuterobaris*).—Stiles, 1901, 189.

proteus (Brand., 1891), Looss, 1899b, 669, 770-772, fig. 82.—Braun, 1901b, 38, 54.

BATHYCOTYLE Darr, 1902a, 644-662 (m. *branchialis*), 678, 687, 691, 696; 1902b.

branchialis Darr, 1902a, 644-662, pl. 23, figs. 1-15 (in mackerel; Pemba, German East Africa); 1902b, 735-736.

BENEDENIA Dies., 1858e, 313, 363-364 (m. *elegans*=*sciænæ*; in *Sciæna aquila*; Ostend) [not of Gray, 1864, mammal; not of Schneider, 1875, protozoon]; 1859c, 437.—Braun, 1890a, 518.—Mont., 1888, 87; 1902, 143.—Odhn., 1905, 371.—Tasch., 1878, 566 (syn. of *Trist. Cuv.*).

elegans Dies., 1858e, 364 (new name for *Epibdella sciænæ* in *Sciæna aquila*; prope Ostendam); 1859c, 437.—Sons., 1891, 263.—Tasch., 1878, 565.

hendorffi (Linst., 1889) Linst., 1903, 355 (in *Coryphæna*). *Epibdella* (Benedenia).

ishikawæ (Goto, 1894) Linst., 1903, 356, E. (Benedenia), from *Lethrinus*.

monticellii (Par. & Perugia, 1895) Linst., 1903, 356, E. (Benedenia), from *Mugil*.

ovata (Goto, 1894) Linst., 1903, 356, E. (Benedenia), from *Anthiæ*.

sciænæ (Ben., 1856) Linst., 1903, 355, E. (Benedenia), from *Sciæna*.

BILARZIA Mazzei, 1905a, 657, for *Bilharzia*.

BILHARCIA de Bonis, 1882, 115, for *Bilharzia*.

BILHARTZIA Sons., 1877, 652, for *Bilharzia*.

BILHARXIA Semprum, 1890, 596, for *Bilharzia*.

(BILHARZIA) written as subg. of *Dist.* by some authors. as Bomford, 1887a, but probably not intended as a subg. in all cases.

BILHARZIA Cobbold, 1859d, 364 (m. *hæmatobia*); 1876, 488, 756; 1879, 17, 39, 42, 44, 45, 47, 48, 49, 52; 1883i, 106-107, figs. 1-2; 1885a, 498-500, figs. 211-213.—Alexander, 1906, Mar. 1, 69.—Beach, 1899, 103.—R. Bl., 1888a, 541, 543; 1888u, 832, 833, 1 fig.; 1904, 153.—Brand., 1892, 507.—Braun, 1891d, 426; 1892a, 573, 574, 603, 698, 707, 715, 735, 760, 764, 765, 788, 790; 1893a, 878, 879, 882, 885, 886, 890, 893, 894, 895, 908, 912, 918; 1895b, 125, 127, 129, 136, 151; 1900h, 3; 1901, 562; 1902b, 140, 142; 1903, 3 ed., 168.—Brock, 1893b, 622-625.—Catto, J., 1904, Nov. 19, 1411 (new species of).—Chatin, 1887, 1003-1006; 1887, 595.—Coe, 1896a, 562, 564, 566, 567.—Darr, 1902a, 649.—Fischer, 1883a, 41.—Fritsch, 1888a, 192-223, 1 fig., pls. 11-12, figs. 1-14 (anat.); 1888b, 588.—Gamb., 1896a, 73.—Grassi & Rovelli, 1888c, 799.—Hahn & Lefèvre, 1884a, 515; 1884, 805, 806.—Harrison, 1889, 163.—Higgins, 1906, 887.—Hoyle, 1890, 539.—Huber, 1894, 297.—Jackson, 1888, 644, 646, 648, 649, 654.—Juel, 1889, 37.—Kartulis, 1885e, 364, 1 fig.—Kholodk., 1898, 23, 25, 32.—Kowal., 1895g, 2, 3, 5, 15, 23, 24, 25, 42, 43, 45, 55, 63, 64, 65; 1896g, 70; 1896i, 8 [352].—

BILHARZIA—Continued.

- Leuck., 1863, 617.—Looss, 1892, 81, 82; 1894a, 179; 1896b, 2, 167; 1899b, 536, 538, 542; 1901, 196.—Moniez, 1896, 83, 154.—Montgomery, 1906, Feb. 12, 18.—Mont., 1888a, 7, 11, 15, 34, 37, 51, 61, 62, 84, 92, 105; 1892, Oct. 7, 214; 1893, 43, 82, 87, 94, 107, 154; 1896, 162, 163.—Sambon, 1899, v. 2, 117–120, 2 figs.—Schneidemuehl, 1896, 295.—Shipley, 1905, v. 6 (1), 4.—da Silva Lima, 1877, Nov., 489.—Sons., 1874, 71–83; 1882, June 10, 620–621; 1890, 134.—Stiles, 1898, 60; 1903, 77.—Stiles & Hass., 1898a, 83, 93, 94.—Villeneuve, 1892, 153–157.—Vogt, 1878, 9, 14.—See also *Schistosoma*. For additional medical papers on infections with species of *Bilharzia*, see also *Bilharziosis*.
- 1877: *Bilhartzia*, Sons., 1877, 652.
- 1882: *Bilharzia de Bonis*, 1882, 115.
- 1890: *Bilharzia Sempurum*, 1890, 596.
- 1905: *Bilarzia Mazzei*, 1905a, 657.
- bovis* Sons., 1876, 84–87, fig. (in *Bos taurus*; Egypt); 1876, 280; 1876, 400; 1876, 594–595; 1876, Oct. 18, 631–632; see *Gynæcophorus crassus*; 1877, 651.—Barbagallo, 1899c, 279.—R. Bl., 1888a, 650.—Bomford, 1887a, 54; 1887b, 345–346.—Braun, 1892a, 763; 1893a, 912; 1895, 154.—Cobbold, 1876, 489; 1876m, 781; 1879b, 332.—Dav., 1877, 943.—Grassi & Rovelli, 1888.—Huber, 1894, 302.—Kowal., 1895g, [3] 43 (syn. of *B. crassa*).—Laveran & R. Bl., 1895, 101–104.—Stiles, 1898a, 60.—Stoss., 1892, 6 (syn. of *Gynæcophorus crassus*).—Ward, 1895, 332 (in *Bos taurus*), 335 (in *Ovis aries*).
- capensis* Harley, 1864a, 63 (in *Homo*; Cape of Good Hope).—R. Bl., 1888a, 644.—Bourel-Roncière, 1888a, 130.—Cobbold, 1872b, 89 (syn. of *B. hæmatobium*).—Dolley, 1894a, 982.—Dav., 1877, 941.—Gues, 1879a, 169.—Stiles, 1898a, 58.—Ward, 1903, 872.
- crassa* Sons., 1888, 124, 125; 1895, 124; 1896, 79; 1896, 309, 318.—Barbagallo, 1899a, 10 pp. (in *Sicilia*); 1899b, 15–16; 1899c, 277–285.—R. Bl., 1888a, 650.—Braun, 1893a, 876, 882; 1893d, 467; 1902b, 143.—Cobbold, 1885a, 498, 499, 500, fig. 213; 1885b, 985.—Colloridi, 1891a, 856.—Gamb., 1896, —.—Gomy, 1897a, 377.—Kowal., 1895g, [3, 4], 43, 44 (syn. *B. bovis*); 1896g, 64; 1896i, [8], 352; 1897b, 2, 3; 1898h, 150, [47].—Looss, 1892a, 81; 1895, 3, 12, 13, 32, 38, 39, 48, 98; 1896b, 159.—Moniez, 1896, 159, 168.—Sanfelice & Loi, 1896, Sept. 12, 305–307.—Stiles, 1898a, 60.—Ward, 1895, 332 (in *Bos taurus*), 335 (in *Ovis aries*).
- ematobia* Sons., 1884, 20, 21.
- endemica* Sons., 1884, 17–21 [not used as specific name, but in the sense of *Bilharzia*, endemic in, etc.].—Huber, 1894, 303.
- hæmatobia* (Bilharz, 1852) Cobbold, 1859d, 364; 1864g, 157; 1866, 6; 1872b, 89–92, figs. a–w; 1872c, 636–646, figs. a–u; 1876m, 780; 1876h, 211, 212; 1876n, 488; 1879b, 38–56, 181, 185, 289, figs. 7–16, 19; 1880e, 59; 1882, Jan., 2; 1882c, 84; 1882f, 272; 1883i, 107, figs. 2–3; 1883, 401; 1885a, 498, 499, 500, figs. 211–212 (syns. *B. magna*, *Dist. hæmatobium*); 1885b, 985.—Agnew, 1881, 538.—Aitken, 1866, 804, 839–841; 1872, 146.—Albany M. Ann., v. 9, 202.—Albarran & Bernard, 1897a, 645–647; 1897b, 1096–1123, pl. 11.—Allen, 1882, July 15, 51–53; 1883, 15, 660–661; 1888, 310.—Almeida Couto, 1872, 4, 5, 6, 7, 10, 13, 14, 16, 17, 18, 24, 30, 42.—Auden, 1904, Apr. 30, 1235.—Barbagallo, 1899c, 277, 278, 279, 282.—Batho, 1872a.—Bays, 1901a, 825.—Belleli, 1885b, 54–56, figs. 19–20.—Ben., 1878a, 276.—Birch-Hirschfield, 1889, 302.—Birt, 1904 (10), 421–422.—Bizzozero, 1883, 220, fig. 80.—R. Bl., 1887a, 500–507; 1888a, 636–652, figs. 330–335 (syns. *Dist. hæm.*, *Gynæcophorus hæm.*, *Schist. hæm.*, *Thecosoma hæm.*, *Dist. capense*); 1888e, 193; 1888r, 51; 1890, 54; 1891p, 604–615.—de Bonis, 1882, 115.—Booth, 1882a, 81–84.—Bowlby, 1889a, 891; 1889b, 786; 1891a, 136; 1891b, 194–195.—Brault.—Braun, 1891d, 426; 1892a, 571, 572, 602, 606, 640, 673, 674, 740, 764, 765, 766, 778, 783, 785, 876, 882, 911; 1893a, 912, pl. 25, fig. 10; 1893b, 187; 1893d, 467; 1895b, 152–154, figs. 69–71.—Brock, G. S., 1893a, 52–74, pls. 8–10, figs. 1–17.—Brooks, 1897a, 492–493.—Bull. med., 1888, v. 2, 918; 1890, v. 4, 281.—Buttel-Reepen, 1900a, 590; 1902, 188, 191, 193.—Cadet, 1876.—Calvert, 1902c, 1523 (*hematobia*).—Chaker, 1890a.—Chatin, 1881, 11; 1887a, 595–597; 1887, 129; 1887, 1003.—Childe, 1899a, 644; 1899, 318.—Chute, 1888a, 85–87, 89–91, figs. 1–8.—Coles, 1902a, 1137–1138.—CoHoridi, 1891a, 854–864.—Cortet, 1893.—da Costa, 1884, 935.—Crevaux, 1874a, 177.—Crocker, 1883a, 25–28.—Cureton & Webb, 1889a, 156 (from *S. Africa*).—Curtis, 1896a, 56–58.—Damaschino, 1882, 949.—Dav., 1877, 909, 952.—Davies, 1884, 181.—Deblenne, 1885.—Dight, 1887a, 420–424

BILHARZIA—Continued.

- (*hæmatobium*).—Dunglison, 1893, 142, 502, 518, 820.—Ebstein, 1884, 45, etc.—Ensor, 1904, Nov., 575–576.—Eve, 1888a, 184.—Fenwick, 1888a, 344–346.—Fenwick & Harris, 1888a, 183–184.—Fouquet, 1885a, 677–680, 693–696.—Fritsch, 1885, 30.—Gamb., 1896, 4, 63, 68–70, fig. 34.—Gautrelet, 1885a, 577–579; 1885, 138.—Gonzalez, 1904, 193–194 (*hematobium*).—Grassi & Rovelli, 1888, 799; 1888d, 284.—Gues, 1879a, 169–175.—Guillemond, 1882; 1883a; 1884, 4; 1894a.—Gutch, 1900a, 1222.—Harley, 1864a, 62, 63 (to Dist.).—Harrison, 1889a, 163.—Hartley, 1887a, 214.—Hatch, 1878a, 874–875, figs. 1–2; 1887a, 875; 1887b, 760–761; 1903a, 772 (in India); 1903b, 225.—Handford, 1894, 48.—Herff, 1894, 415 (syn. Dist. *bilharzii*).—Hertwig, 1892.—Hirsch, 1883, 206–209.—Hoyle, 1890, 538–540, fig. 4a.—Huber, 1896a, 580–582.—Ijima, 1889b, 155.—Jackson, 1888, 653.—Jacoby, 1900, 3.—Jaksch, 1889, 42; 1892, 122.—Jamieson, 1897b, 147.—J. Trop. M., 1905, 335.—Kartulis, 1885e, 364, 1 fig.—Keating, —, 768–773, fig. 7.—Kholodk., 1898, 32–33, pl. 11, figs. 22–25.—Kowal., 1895g, [3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 23, 24, 25, 26], 43, 44, 46, 47, 48, 49, 50, 51, 52, 53, 55, 56, 57, 58, 59, 60, 63, 64, 65, 66; 1896g, 64, 66, 67, 68, 70, 71; 1896i, [4, 7, 8, 9, 10], 348, 351, 352, 353, 354; 1896l, 146, 147; 1898g, 75; 1898h, 150, 151, 152, 155, 158, [47, 48, 49, 52, 55].—Kuech., 1879, 340–354.—Kuech. & Zuern, 1881, 340, pl. 8, fig. 13.—Lawson, 1904a, 263–271, figs. 1–6.—Leuck., 1876, 873; 1893, 464–534, fig. 231.—Lewis, 1900a, 1057–1058.—Lockwood, 1901, 2, ed., 821.—Looss, 1892a, 82; 1896b, 2, 64, 158–166, 167, pl. 11, figs. 107–114; 1905, 100.—Lortet & Vialleton, 1894, 8.—Lyle, 1883, 113.—Mackie, 1882, Oct., 661.—Madden, 1899.—Manson, 1901, 542 (syn. Dist. *hæm.*); 1903, 3, ed., 605–616, 639, figs. 86–89.—Mitchell, 1870a, 3.—Moniez, 1896, 170.—Montgomery, 1906, Feb., 18.—Mont., 1888, 9, 15, 17, 18, 67, 68, 69; 1893, 27, 86.—Monvenoux, 1884.—Moore, 1885, 89.—Moty, 1893, 51.—Nachtigal, 1879, 151.—Napier, 1887, 460; 1890, 88–91; 1892.—Neumann, 1888, 547–548, fig. 272; 1892, 2, ed., 610–611, fig. 321; 1892, 632–633, fig. 321.—N. Y. M. J., 1896, v. 64, 586.—Nitze, 1891, Feb. 16.—Num, 1888, 407–410.—Packard, 18—, 523.—Pariera, 1877.—Parker, 1889, 71; 1891, 80, 124, 683.—Perroncito, 1882, 279–283, figs. 122–123.—Petrie, 1903, July, 133–134.—Rail., 1892, 161; 1893a, 371–375, figs. 245–246.—Rathelot, 1892.—Rathery, 1907, 48.—Ratz, 1899, 617.—Rawitz, 1893, 858–859.—Rendall, 1904, Mar., 755–756.—Roberts, 1879, 452; 1888, 790, 801.—Rogers, 1901, 95.—Rosenstein, 1892; 1894, 654.—Ross, 1904, 687.—Rossbach, 1906, 414.—Ruault, 1885, 56.—Ruetimeyer, 1892, 144.—Seligmann, 1897, Dec., 834.—Sewell, 1904, Nov., 575.—Shattock, 1891, 196.—Shaw, 1901, 19.—Silva Araujo, 1877, Nov., 499.—Silva Lima, 1877, Sept., 388, 389.—Simon, 1897, 99.—Simpson, 1871, 212–215; 1872, Mar., 123.—Sons., —, 743; 1874, 502; 1874, 71; 1874, 305–321; 1875, 738; 1876, 3–17, 33–46, 1 pl., figs. 1–9; 1876, 233–235; 1876, 376; 1876, 283; 1877, 297–307; 1877, 651; 1878, 611; 1879, 9; 1884, 365; 1885, 1197; 1887; 1888, 119–127; 1894, 754; 1896, 79; 1896, 287, 295, 298–299, 307, 309, 311, 314, 315, 320–329; 1897, 259.—Stevenson, 1892, 274.—Stoss., 1892, 5 (to *Gynæcophorus*).—Symmers, 1905, v. 168, 1138.—Thurn, 1882.—Tyson, 1903, 3rd, 1181.—Ultzmann, 1878, 34.—Unione M. egiz., 1884–5, 1, nos. 20–21.—Verrill, 1870, 170.—Villeneuve, 1891, 321; 1891, 556; 1891, 398; 1892, 153, etc.—Virchow, 1888, 368; 1891.—Vogt, 1878, 10, fig. 1, 36.—Walker, 1900, 651; 1900, 390–392; 1905, 207–209.—Ward, 1895, 253, 327; 1903, 872 (to Schist.).—Wortabet, 1880, 603; 1882.—Worth, 1904, Feb. 27, 611.—Zancarol, 1882, 410.—Zuelzer, 1894, 205.—Zuern, 1882, 220.
- anatomy and histology of: Brock, 1893a; 1893b; 1894a.—Chatin, 1887a, 595–597; 1887b; 1887c; 1887d (excr., genital organs).—Fritsch, 1885a, 407, 411; 1888a, 192–223, pls. 11–12; 1888b, 588.—Looss, 1895c, 1–108, figs. 1–30; 1896a, 329–332.
- ciliated embryo of: Chatin, 1880d, 554–555; 1880e, 405–406; 1881a, 1–11, figs. 1–8; 1881b; 1884d, 364–365.—Cobbold, 1864; 1871b, 135; 1872b, 89–92, figs. ; 1872c, 636, 746.—Looss, 1893, 521–528.—Manson, 1903, 3, ed., 607, fig. 88.—Seeligmann, 1898.
- , eggs of: Belleli, 1885a, 1–3 (in lungs).—Brock, 1893b, 622–625, figs. 1–6, 1894a, 774.—Cahier, 1892a, 570–576, figs. 1–4 (egg and embryo).—Chatin, 1884d, 364–365; —, 740.—Le Dantec, 1904, Dec., 399–400.—Jones, 1893a, 145 (in hematuria).—Kartulis, 1885a, 139–145, figs. 1–4 (in pelvic organs); 1885b, 188–189.—Looss, 1893, 521–528; 1905, 101–102.—Low, 1903b, Feb., 67–68; 1903l, May, 232.—Manson, 1901, 542; 1903, 3, ed., 606–607, 613, fig. 87.—Mazzei, 1905, 659 (in urine and feces); 1905, Aug., 550; 1905, July, 1083.—Milton, 1902.—Seligmann, 1898.—Smith, 1905, Oct., 656–659.

BILHARZIA—Continued.

- , life history of: Cobbold, 1872b, July, 89–92.—Lazarus-Barlow & Douglas, 1903a.—Looss, 1894c, 286–292, 340–346; 1905, 903.—Manson, 1903, 3. ed., 608.—Sons., 1884, 380–394, 1 pl., figs. 1–6; 1888, 100–101; 1893, Sept., 621–622; 1893, Oct., 466–467; 1893, Nov., 707–708; 1893, 997–1000; [1894, 9–10;] [1894, Jan., 10–14;] 1894, Nov., 754–755.
- hæmatobia crassa* (Sons., 1877) Kowal., 1894; 1895g, 18, 19, 27 [58, 59, 67], pl. 2, fig. 2 (in *Bos taurus*, *Ovis arics*; Africa, Sicily).—Stiles, 1898a, 60.
- hæmatobia hominis* (Dics., 1855) Kowal., 1895g, 18, 19, 26–27 [58, 59, 66–67], pl. 2, fig. 1 (in *Homo*; Africa).—Stiles, 1898a, 58.
- hæmatobia magna* (Cobbold, 1859) Kowal., 1895g, 27 [67] (in *Cercopithecus fuliginosus*; Africa?).—Stiles, 1898a, 58.
- hamcatobia crassa* Kowal., 1895g, 18 [58], for *hæmatobia*.
- hæmatobia* Bourel-Roncière, 1878a, 116, 117, for *hæmatobia*.
- kowalewski* (Rail., 1899) Par., 1902, 6, for *kowalewskii*.
- kowalewskii* Par. & Ariola (1896), 114–116 (1–3), 1 fig. (in *Larus melanocephalus*); 1896, Oct. 24, 620.—Kowal., 1896i, 9, 353.—Looss, 1899b, 658 (to *Bilharziella*).—Par., 1899, 7, 1 fig.; 1902, 6 (*kowalewski*) (in *Larus melanoc.*).—Sons., 1896, 319.
- magna* Cobbold, 1859d, 364, pl. 63, fig. 8–9 (in *Cercopithecus fuliginosus*); 1861, 118; 1872b, 89 (syn. of *B. hæmatobia*); 1885a, 498 (syn. of *B. hæmatobia*).—Braun, 1893a, 876, 911; 1893d, 467.—Colloridi, 1891a, 854 (syn. of *B. hæm.*).—Dav., 1877, 942.—Leuck., 1863, 619.—Kowal., 1895g, 3 [43, 64].—Moniez, 1896, 155.—Sons., 1888, 124.—Stiles, 1898a, 58, 59, 138.—Stoss., 1892, 6 (to *Gynæcophorus*).
- magnum* of Montgomery, 1906, Feb., 12, 45, for *magna*.
- ovis*, see Cobbold, 1885a, 499 (in *Ovis*).
- polonica* Kowal., 1895g [1–27], 41–70, pl. 2, 20 figs. (in *Anas boschas fera*, *A. crecca* L.; Dublin); 1896d, 4 (254); 1896g, 63–72; 1896h, 265–266; 1896i; 345–356, pl. 12, figs. 1–9; 1896k, 345–356, pl. 12, figs. 1–9; 1896l, 145–148, 1896m, 145–148; 1897a, 41–70, pl. 2, figs. 1020; 1897b, 198–200 (1–3); 1898g, 75–77, figs. 30–36 (in *Anas acuta*, *A. boschas dom.*, *A. cinerea*, *A. querquedula*, Dublin; Poturzyca, Gênes); 1898h, 135, 148–158 (32, 45–51, 52, 54, 55), figs. 30–36.—Barbagallo, 1899c, 281.—Looss, 1899, 567, 658 (type of *Bilharziella*).—Sons., 1896, 318; 1896, Mar. 1, 79–80; 1897, Jan. 17, 198–200.—Sons. & Kowal., 1897, 3 pp.—Also reported for *Ardea cinerea*, *Mergus albellus*.
- BILHARZIELLA Looss, 1899b, 543, 657–658 (tod. *polonica*); 1902, 746.—Braun, 1901, 562; 1902b, 149, 142; 1903, 169 (in birds).—Darr, 1902, 660.—Montgomery, 1906, Feb. 12, 18.—Pratt, 1902a, 889, 907 (key).
- canaliculata* (Rud., 1819) Braun, 1902b, 142–146, figs. 58–88 (includes *Dist. canaliculatum* Rud., 1819a, 676; Duj., 1845a, 449; and *Dist. canaliculatum* (Rud.) Dies., 1850a, 346; Stoss., 1892, 36; Braun, 1901, 562).
- kowalewskii* (Par. & Ariola, 1896) Looss, 1899b, 658.—Braun, 1902b, 140.
- polonica* (Kowal., 1895) Looss, 1899b, 543, 658.—Braun, 1902b, 140, 141, 145.—Kowal., 1902d, 28 (10) (in *Anas querquedula*, *A. acuta*, *A. crecca*, *A. boschas*, *A. boschas dom.*, *Mergus albellus*); 1904, 8 (23) (in *Fuligula leucophthalmos*; Dublin).—Montgomery, 1906, Feb. 12, 18.
- pulverulenta* Braun, 1901g, 946–947 (in *Anas querquedula*; Dongola); 1902b, 140, 141 (in *A. quer.*).
- BILHARZIOSIS (name of disease): Allen, 1882, July 15, 51–53; 1888, Apr., 310–320 (parasitic hæmaturia).—Ashford, King & Igaravidez, 1904, Dec., 91 (in Porto Rico).—R. Bl., 1904, Feb., 153;—Chute, 1888a.—Douglas & Hardy, 1903, v. 6 (1), 1.—Goebel, 1903h; 1903i, 390; 1906, Mar., 61; 1906, Apr.; 1906, July, 531.—Guillemard, 1883a, 151; 1894a, 834; 1897a, 1091–1101, figs. 64–70.—Gunn, 1905, June, 1953–1954; 1905, May, 776.—Hanford, 1893–94, 48.—Harley, 1864a, 55–72; 1869a, 379–387 (endemic hæmaturia).—Hatch, 1903a, 772 (in India); 1903b, 225.—Kanellis, 1904b, 45–51 (bilious hemoglobinuric fever).—Katsurada, 1904c, Aug. (endemic disease).—Kautsky, 1903a, 649–652.—Lawson, 1904a, Sept., 263–271.—Leão, 1897a, 337–366, figs. 1–2, pl. 2, figs. 1–3; 1898, 504.—Letulle, 1905b, 37.—Looss, 1903a, 32; 1905, 93.—Lortet, 1893a, 618–620.—Lortet & Vialleton, 1894a, 1–111, pls., figs.; 1895a, 265–269.—Lyle, 1883, Jan., 9 (endemic hæmaturia).—Madden, 1902, June, 165; 1903, 1; 1903, 866; 1904, 73–80, figs. 1–6.—Manson, 1901, 542 (endemic hæmaturia);

BILHARZIOSIS—Continued.

- 1903, 3. ed., 605-616, figs. 86-88.—Martinez, 1904, Dec., 193-194; Milton, 1902c, 165-170, 191-192, 200-203, 213-219 (3 lectures); 1904a, 107-122, 1 pl.—McL., K., 1903, June, 255.—Montgomery, 1906a, 15-46, 2 pls. (in animals in India); 1902b, 32 pp., 2 pls.; 1906c, 138-174, pls. 1-2; 1906d, 37 pp., 2 pls.; 1906e, 164; 1906f, 531-532; 1906g, 834; 1906h, 251-252, 259-260; 1906i, 564-565.—Posnett, 1901, 318.—Rankin, 1904, July, 354; 1904, July, 210.—Rochard, 1871, 298.—Reutimeyer, 1894.—Roux, 1906, 105-107.—Sandwith, 1904, Oct., 460-477; 1904, Nov. 15, 360; 1904, Dec. 6, 2200.—Scheiss-Bey, —, 303.—Scott, 1904, 725 (in Persia).—Semaine méd., 1903, 3.—Sewell, 1904; 1904, Nov., 360 (in India).—Sons., 1876, 650 (Egypt).—Villeneuve, 1891, 398, 421 (in Tunisie); 1891, 556.—Virchow, 1888, 361-385.—Voorthius, 1905, 1665-1672.—Wortabet, 1880, Sept., 578.
- , cases of: Anders & Callahan, 1905, 509-519, figs. 1-2.—Benham, 1906, 922.—R. Bl., 1904, Dec., 148-151; 1906, Jan. 18, 662-663.—Booth, 1882, 81-84.—Bowlby, 1889, Apr. 20, 891.—Brault, 1891a; 1891c; 1891, 409; 1892a.—Brooks, 1897a, 492-493; 1897, 617.—Cahier, 1894, Apr., 363-365.—Childe, 1899a, 644; 1899b, 318; 1899c, 598.—Cobbold, 1878h, 358.—Cortez, 1905, 97-103.—Crocker, 1883a, 25-28.—Cureton & Webb, 1899a, 156.—Davies, 1884, 181.—Le Dantec, 1904, Nov., 399-400.—Douglas & Hardy, 1903, Oct., 1009-1012; 1903, Oct., 476; 1903, Oct., 259; 1903, Oct., 835-866; 1903, Nov., 1032; 1903, Nov., 735; 1903, Dec., 263; 1904, Jan., 34; 1904, Jan., 60; 1904, Oct., 476.—Duncan, 1902-03, 187-189.—Fenwick, 1888, 344-346.—Freeman, 1905, 145-148.—Frothingham, 1904, 453-457, 1 pl.—Gautrelet, 1885a, 577-579.—Gunn, 1906, Apr., 1031-1032.—Gutch, 1900a, 1222.—Handford, 1887b, 240-245, figs. 1-3; 1889a, 424-425; 1894a, 48-49.—Hillmantel, 1893a, 230-233, figs. 1-3; 1893b, 4 pp., 3 figs.—Jones, 1893a, 145.—Lelean, 1904f, 425-428.—Letulle, 1904a, 48; 1905a, 420-421.—Lewis, 1904a, 345-346.—Lillie, 1901a, 212.—Madden, 1899, June, 1716; 1899, July, 114; 1901, May., 143-144.—Manson, 1902, Dec., 384-385; 1902, Dec., 1894-1895; 1903, Jan., 15; 1903, Jan., 121; 1903, Feb., 15; 1903, June, 293.—Moore, 1885, 89-92.—Nitz, 1891, Jan. 28.—Pool, 1903, Apr., 632-633; 1903, June, 1146.—Rafferty & Rafferty, 1904, June, 918-919, 6 figs.; 1904, June, 1148-1149; 1904, June, 1661; 1904, Nov., 523.—Sewell, 1904, Mar., 346-347; 1904, Nov., 360.—Simpson, 1872, 320-321.—Smith, 1905, Oct., 656-659, figs. 1-4; 1905, Oct., 1359; 1905-06, 515-518.—Sondern, 1897, May, 554-557, figs. 1-6 (see case of Brook, 1897, 492).—Symmers, 1906, Jan. 18, 662; 1906, Jan. 7, 22.—Tottenham Posnett, 1901, Oct., 318-319.—Villeneuve, 1891, 321-324.—Walker, 1900, Feb., 390-392, 8 figs.; 1900, 651.—Wallace, 1901, Feb., 121-124; 1901, Feb., 304-305; 1902, Mar., 203.—Wardrop, 1906, Sept., 282-283.—Webb, 1899, Jan., 156.—Wortabet, 1880, Jan., 603-604, figs. A-E.
- , complications of: Ali Labib, 1902 (urinary fistulæ).—Bouchut, 1879a, 874-877 (chyluria).—Letulle, 1905c, Apr., 607-609 (phlebitis); 1905d, Apr., 231-232.—Looss, 1905, 94, 95 (fistulæ).—Madden, 1902, Dec., 241-257 (calculi, vesical); 1902, July, 317-329.—Manson, 1903, 3. ed., 610 (fistulæ).—Milton, 1902, 166-167 (carcinoma), 167-168 (stricture), 200-201 (fistulæ), 215.—Mouvenoux, 1884, 1144 pp. (chyluria).—N. Y. M. J., 1896, v. 64, 586 (urethral fistulæ).—Panagiotatou, 1900, Mar., 649-650 (chylothorax).—Silva Lima, 1877, —; 1878, Feb., 171.—Trekaki, 1896, Oct., 586 (urethral fistulæ).—Trekaki & Eichstorff, 1896, Sept., 769 (urethral fistulæ).
- , diagnosis of: Jaksch, 1892, —.—Looss, 1905, 105.—Manson, 1903, 3. ed., 613-614.
- , etiology of: Gues, 1879a, 161-190.—Huber, 1896, 581.—Katsurada, 1904e.—Lockwood, 1901, 2. ed., 821.—Looss, 1905, 95, 103.—Manson, 1903, 3. ed., 605.—Milton, 1902.—Mohammed Bey (1904).—Sons., 1882, Sept., 569-573.—Tyson, 1903, 3. ed., 1181.
- , geographic distribution of: Anders & Callahan, —, 509-519 (U. S.).—Ashford, King & Igaravidez, 1904, 91 (Porto Rico).—Batho, 1872, Dec., 502-504 (Cape of Good Hope).—R. Bl., 1891, 611-612 (Cuba).—Brault, 1891a, 382-385, 3 figs. (Lyon); 1891b, Aug., 409 (Tunisie); 1891c, 449-453; 1892a, 51-56.—Braun, 1903, 3. ed., 169-172, figs. 118-122 (Egypt, Capland, Abessinien, Sudan, Mozambique, Natal, Gold Coast, Tunis, Algiers, Arabia (Mekka)).—Cahier, 1893a, 101-116 (Tunisie).—Chevreau & de Chazal, 1890a, June, 44 pp. (à l'île Maurice).—Cobbold, 1876, 487-489 (Australia, Egypt); 1878h, 357 (Natal).—Le Dantec, 1904, Nov., 399-400 [62-63] (Natal).—Davies, 1884,

BILHARZIOSIS—Continued.

- 181 (Cape of Good Hope).—Deblenne, 1883, 271 pp. (Nosi-Bé).—Eyles, 1887a, 659-660 (West Africa).—Fagge & Pye Smith, 1902, 4. ed., 475 (Egypt & Natal).—Faichnie, 1905, Nov., 638-639 (England).—Felkin, 1889.—Freeman, 1905, 145-148 (England).—Gonzales Martinez, 1904 (Porto Rico).—Grassi & Rovelli, 1888c, June, 799 (Sicilia).—Gunn, 1905, May 23 (Porto Ricans at San Francisco); 1905, 1953-1954; 1906, Apr., —; 1906, July, 224.—Harley, 1864a, 55-72 (Cape of Good Hope); 1869a, 379-387 (Cape of Good Hope and Natal); 1871a, 47-62, pl. 1 (southeastern coast of Africa).—Hatch, 1903a, 772 (India); 1903b, 225 (India).—Hillmantel, 1893a, 230-233, figs. 1-3 (?U. S. A.); 1893b, 4 pp., 3 figs. (?U. S. A.).—Katsurada, 1904e, Aug., — (Japan: Yamashiro, Hiroshima, Saga, etc.).—Lahille, 1906, 262-265, 2 figs. (Antilles).—Legrain, 1898, 148-169, 8 figs. (Algeria).—Letulle, 1904a, 46-48 (Martinique); 1905a, 420-421 (Martinique).—Lillie, 1901a, 212 (Orange River Colony).—Lyle, 1882a, 9-10 (southeast coast of Africa); 1883a, 113-132.—Manson, 1901, 542 (Africa; Persia; Egypt); 1902, Dec., 384-385 (West Indies); 1902, Dec., 1894-1895 (West Indies); 1903, Jan., 18 (West Indies); 1903, Jan., 121 (West Indies); 1903, Feb., 15 (West Indies); 1903, June, 293 (West Indies); 1903, 3. ed., 605 (Egypt, Natal, Mauritius, Gold Coast, eastern coast of Africa to Port Elizabeth; Uganda; Mesopotamia; Cyprus; possibly Sicily; West Indies).—Martinez, 1904, 32 pp. (Puerto Rico); 1904, Dec., 193-194 (Puerto Rico).—McL., K., 1903, June, 225 (India).—Milton, 1897, 93-106 (Egypt); 1903, Mar. (Egypt); 1903, May, 779-780 (Egypt).—Mohammed Bey Talaat, 1904a, statistics (Egypt).—Montgomery, 1906, in animals (India); 1906, 1-32, pl. 1, figs. 1-4, pl. 2, figs. 1-3; (2), pp. 1-37, pl. 1, figs. 1-4, pl. 2, figs. 1-3 (India); 1906, Jan., 15-46 (India); 1906, Feb. (India); 1906, Apr., 138-174, pls. 1-2 (India); 1906, May, 164 (India); 1906, July, 531-532 (India); 1906, Aug., 251-252 (India); 1906, Aug., 259-260 (India).—Peyrot, 1905, 105-111 (Tombouctou).—Posnett, 1901, Oct., 318-319; 1901, Oct., 672; 1901, —.—Powell, 1903, Feb., 490 (India).—Rafferty, 1904, June, 918-919 (U. S. A.); 1904, June, 1148-1149 (U. S. A.); 1904, June, 1661 (U. S. A.); 1904, Nov., 523 (U. S. A.).—Renoult, —, 366-370 (Egypt).—Sandwith & Harding, 1906, 217 (South Africa).—Scott, 1904, Mar., 726 (Persia).—Sewell, 1904, Nov. (India); 1904, Nov., 360 (India).—Smith, 1905, Oct., 656-659 (U. S. A.).—Sons., 1874, 71-83 (Egypt); 1874, Aug., 502-510, Sept., 521-539, figs. 1-7 (Egypt); 1874, 305-313, 320-331, figs. 1-7 (Egypt); 1875, Dec., 738-748 (Egypt); 1876, 3 (Egypt); 1876, June, 650 (Egypt); 1876, Jan., 376 (Egypt); 1876, 652-673, figs. 1-9 (Egypt); 1887 (Egypt); 1887, 12 pp. (Massana).—Sturrock, 1899, Dec., 1543 (Mesopotamia); 1899, Dec., 1212-1213 (Mesopotamia).—Tyson, 1903, 3. ed., 1181 (Egypt & Africa).—Villeneuve, 1891, 398 (Tunisie); 1891, 421 (Tunisie); 1892, 153-157 (Tunisie); 1892, 556 (Tunisie); 1893, 49-53 (Tunisie).—Williamson, 1902, Aug., 475 (Cyprus); 1902, Aug., 313 (Cyprus); 1902, Sept., 956 (Cyprus); 1902, Dec., 625 (Cyprus); 1903, 956 (Cyprus).
- , location and pathology of: Belleli, 1886a, 4-5, 12-14, 18-21, 28-29, 35-37.—Birch-Hirschfeld, 1889, 302.—Bowlby, 1889a, 891; 1889b, 786.—Colloridi, 1891a, 854-864.—Goebel, 1903c, 107-124; 1903d, 52; 1903e, 71; 1903f, 106-109, 127-128, 143-145; 1906, —; 1906, Apr. 14, 269-270; 1906, Apr. 24, 839.—Kartulis, 1898b, 474-486, pl. 8, fig. 1; 1898c, 258-259.—Lecan, 1902b, 1151.—Looss, 1905, 97.—Manson, 1901, 542-543.—Ruetimeyer, 1892, May, 411; 1892, Nov., 144-151; 1894, (12); v. 22, 18.—Sons., 1875, 738-747; 1875, —; 1876, v. 16, 3-33; 1876, v. 49, 233; 1876, 652-673, figs. 1-9; 1876, Jan., 376.
- Abdominal organs: Kartulis, 1885a, 139-145, figs. 1-4; 1885b, 188-189.
- Liver: Looss, 1905, 96, 100.—Manson, 1903, 3. ed., 610, 613 (ova in gallstone).—Phillips, 1904, Sept., 657.—Ruault, 1885, 56-59; 1885, 145-147.—Symmers, 1903, Dec., 237-239, pl. 21, figs. 1-2.
- Mesentery: Ruault, 1885, 56-57; 1885, 145-147.
- Omentum: Madden, 1901c, 143-144.
- Pancreas: Looss, 1905, 96.
- Peritoneum: Madden, 1901c, 143-144 (and omentum); 1902, July, 787-788.—Manson, 1903, 3. ed., 613.
- Spleen: Looss, 1905, 96.
- Heart: Manson, 1903, 3. ed., 613.
- Blood, hematology, eosinophilia: Balfour, 1903, Dec., 1649; 1904, Jan., 35; 1904, Jan., 39; 1904, Aug., 374; 1905, Feb., 125.—Coles, 1902a, 1137-1138; 1902,

BILHARZIOSIS—Continued.

- Nov., 402; 1902b, 914; 1902c, 955; 1902d, 787; 1902e, 993.—Douglas, 1903, Oct., 10; 1904, Oct., 476.—Le Dantec, 1904, Nov. 18, 400.—Fagge & Pye Smith, 1902, 4. ed., 475.—Kautsky Bey, 1904a-e; 1905a; 1905, Oct., 665-666; 1905, Oct., 477.—Lockwood, 1901a, 2. ed., 821.—Looss, 1905, 97-100.—Manson, 1903, 3. ed., 606.—Rep. Wellcome Research Lab., Khartoun, 1904, 58-61.—Russell, 1902, Dec. 6, 1540; 1902, Dec. 18, 326; 1902, Dec. 20, 988; 1902, Dec. 22, 1234-1235; 1902, Dec. 27, 1134.—Symmers, 1905, Jan. 18, 22; 1906, Jan. 7, 662.—Tyson, 1903, 3. ed., 1181.
- Intestines: Damaschino, 1882a, 949 (and urinary); 1883a.—Firket, 1897, June, —; 1899, v. 3 (1), 71.—Lahille, 1906, v. 9 (2), 262-265, 2 figs.—Letulle, 1904a, 46-48; 1905a, 420-421; 1905e, 329-439, figs. 1-16, pls. 1-2.—Mackie, 1882, Oct. 7, 661.—Symmers, 1905, Jan. 7, 22.—Zancarol, 1882, 410-412, pl. 26 (and bladder).
- Appendix: Burfield & Shaw, 1906, Feb. 10, 368-370, figs. 1-2; 1906, Mar. 3, 359; 1906, Mar. 10, 757; 1906, May 29, 1076; 1906, July 16, 532.—Crimp, 1906, Mar. 10, 672.
- Rectum: Belleli, 1885b, 54-56, figs. 19-20.—Bowlby, 1891a, 136.—Letulle, 1904, Jan. 13, —; 1905b, 37; 1905f, 659-714, figs. 1-19, pls. 1-2; 1905g, 672; 1906, Jan. 31, 64-65.—Looss, 1905, 95, 99, 105.—Madden, 1899, May, 566-568; 1899, July, 159; 1902, Feb., —; 1902, May 10, 1285.—Manson, 1903, 3. ed., 610, 612-613.—Milton, 1902, 169.—Ruault, 1885, 56-57; 1885, 145-147.
- Female genitalia: Goebel, 1905; 1379-1382; 1905, Dec. 23, 1334; 1905, Nov. 28, 2333; 1906, Jan. 18.—Horwood, 1906, Mar. 10, —; 1906, Aug. 15, 633.—Looss, 1905, 95.—Madden, 1899, June 24, 1716; 1899, July, 114.—Manson, 1903, 3. ed., 610, 612, 613.—Milton, 1902, 169, 202.
- Urinary system: Bowlby, 1891b, 194-195.—Damaschino, 1882a; 1883a, 150-156.—Eve, 1888a, 184.—Huber, 1896, 581.—Manson, 1903, 3. ed., 612.—Milton, 1902, 181-182.—Trekaki, 1903, Jan., 309-325; 1903, Mar., 329-349; 1903, Apr., 396-408; 1903, June 30, 800.
- Calculi: Ebstein, 1884a.—Looss, 1905, 94, 106.—Madden, 1902, Dec., 241-257.—Milton, 1902, 200.—Reyer, 1856, —.—Zancarol, 1882, 76.
- Kidney: Eve, 1888a, 184.—Manson, 1903, 3. ed., 613.—Ruault, 1885, 56-57; 1885, 145-147.
- Ureter: Milton, 1902, 167.
- Bladder: Eve, 1888a, 184.—Fenwick, 1888a, 344-346 (epicystitis); Fenwick & Harris, 1888a, 183-184.—Goebel, 1903a; 1903b; 1903g; 1904, Oct., 1810; 1905, v. 3 (3); 1905, 369-513 (carcinoma); 1905, Dec., 957-958; 1906, Mar., 45-46; 1906, July, 315.—Harrison, 1889a, 163.—Huber, 1896, 581.—Kutner, 1905, v. 16 (12), 649-657, 1 fig.; 1906, Jan., 78.—Lewis, 1900a, 1057-1058.—Looss, 1905, 97, 98, 100.—Manson, 1903, 3. ed., 610-612.—Milton, 1902a, 181-182; 1902, 166, 191, 192, 214.—Peyrot, 1905, 105-111.—Ruault, 1885, 56-57; 1885, 145-147.—Shattock, 1891, 196-197.—Zancarol, 1881-1882, 410-412, pl. 26.
- Prostate: Ruault, 1885, 56-57; 1885, 145-147.
- Urine: Fagge & Pye Smith, 1902, 4. ed., 475.—Gibson, 1904, 219.—Looss, 1905, 105.
- Hematuria (bilharzian, endemic, Egyptian): Allen, 1888, Apr., 310-320.—Batho, 1872a, 502-504.—Bilharz, 1856a, 49-52, 65-68.—Cantani, 1886, 9.—Chaker, 1890a, 72 pp., figs. —; 1890b, 594.—Chute, 1888a, 85-87, 89-91.—Cobbold, 1885a, 985.—Crevaux, 1872a-b; 1874a, 165; 1875a.—Le Dantec, 1904, Nov., 399-400.—Davies, 1884a, 181-187, figs. 1-7.—Douglas & Hardy, 1903, Oct. 10, 1009-1012; 1903, Oct. 22, 259; 1903, Oct. 31, 865-866; 1903, Nov. 28, 1032; 1903, Nov. 30, 735; 1903, Dec., 263; 1904, Jan. 30, 60; 1904, Jan. 2, 34.—Fagge & Pye Smith, 1902, 4. ed., 475, 679.—Fayrer, 1879b, 189 (not clear whether this refers to the disease or to the parasite).—Frothingham, 1904, 453-457, 1 pl.—Griesinger, 1866, 96.—Guès, 1879a, 161-190.—Guille-mard, 1882a, 61 pp.—Gutch, 1900a, 1222; 1900b.—Handford, 1887b, 240-245, figs. 1-3; 1889a, 424-425; 1894a, 48-49.—Harley, 1864a, 55-72, figs. 1-16; 1864b, 173-175; 1864c, 156-157; 1864d, 161-163; 1864e, 515-517; 1865a, 161-173, figs. a-b; 1869a, 379-387; 1869b, 394; 1871a, 47-62, pl. 1.—Jour-dan, 1877a, —.—Looss, 1905, 83, 93, 94.—Lyle, 1882a, 9-10; 1883a, 113-132.—Renoult, 1808, 366-370.—Roberts, 1879, 461-466.—Simpson, 1872, Sept. 21, 320-321.—Sons., 1874, 71-83; 1874, 502-521; 1874, 305-321; 1876, 233-235; 1884, 17-21.—Thurn, 1882, —.—Ultzmann, 1878, 34, fig. 12.

BILHARZIOSIS—Continued.

- Lungs: Belleli, 1885a, 1-3.—Bowlby, 1891b.—Looss, 1905, 96.—Manson, 1903, 3. ed., 610, 613.
- Tumors: Albarran & Bernand, 1897a, 645-647 (epithelial); 1897b, 1096-1023, pl. 11.—Belleli, 1885, 54-56.—Looss, 1905, 95, 96.—Madden, 1903, Jan., 1-2; 1903, Jan., 14.
- , symptomatology of: Belleli, 1886a, 4-5, 12-14, 18-21, 28-29, 35-37.—Le Dantec, 1904, Nov., 399-400.—Goebel, 1903a-i.—Lelean, 1902a-b; 1904f.—Lockwood, 1901, 2. ed., 821.—Looss, 1905, 94, 95, 105.—Manson, 1901, 543; 1903, 608-609, 610.—Milton, 1902, 191, 201-202.—Moty, 1893, Feb., 51-56 (urine), figs. 1-4.—Tyson, 1903, 3. ed., 1181.
- , prognosis: Lockwood, 1901, 2. ed., 821.—Looss, 1905, 93, 96, 106.—Manson, 1901, 543; 1903, 3. ed., 609, 610, 614, 615.—Milton, 1902, 191, 200 (death due to exhaustion).
- , treatment of: Allen, 1883, 660.—Belleli, 1886a, —.—Cadet, 1876a, —; 1876b, —.—Le Dantec, 1904, Nov., 400.—Ensor, 1904, Nov., 575-576 (chrysoidine); 1904, Nov., 360.—Fouquet, 1885a, 677-680, 693-696; 1885b, 88-95.—Goebel, 1903a-b.—Harley, 1871a.—Looss, 1905, 106, 107.—Manson, 1901, 544; 1903, 3. ed., 615, 616.—Milton, 1897a, 93-106; 1902, 214, 218; 1902, 93-106 (surgery); 1903a, 866-869; 1903b, 714; 1903c, 659; 1903d, 779-780.—Sons., 1885, June, 1197-1198.—Wortabet, 1882, Dec., 979-980 (turpentine).
- BISTOMA Reich, 1801, 371, lapsus for Dist.=Fasc.—Stiles & Hass., 1898a, 83 (to Dist.). *stridulæ* Reich, 1801, 371, in *Strix stridula*.
- BOTHRIOGASTER Fuhrmann, 1904, Sept. 23, 59-61 (m. variolaris), subf. Syncoeliinæ.
- variolaris* Fuhrmann, 1904, 59-61, figs. 1-2 (in *Rostrhamus sociabilis*; South America).
- BRACHYCÆCUM Rail., 1896, 15 Mar., 160, *Brachycœlium* Duj., 1845a [not *Brachycœlus* Chaudoir, coleopteron] renamed, hence type crassicolle.—Stiles & Hass., 1898, 83 (for *Brachycœlium*).—Stoss., 1898, 31.
- brusinaï* (Stoss., 1889 [Looss, 1901]) Barbagallo & Drago, 1903, 410 (in *Oblata melanura*; Catania), Br. as subg. of Dist.
- BRACHYCÆLIUM Mont., 1888, 38 for *Brachycœlium*.
- BRACHYCLADIINÆ Odhn., 1905, 346, 347, f. Fasciolidæ.
- BRACHYCLADIUM Looss, 1899b, Dec., 558-560 (tod. palliatum); 1901, 208; 1902m, 707, 708, 709, 711, 715, 716, 717, 718, 755-778 (cf. *Campula*; *Opisthorchis*), 811.—Braun, 1900g, 251, 254; 1901b, 38; 1905, 339, 344, 345, 346, 347-348.—Odhn., 1905, 347a-348.—Stiles 1901, 203, 204, 205.
- delphini* (Poir., 1886) Looss, 1899b, 558; 1902m, 707, 708.—Odhn., 1905, 348.
- oblongum* (Cobbold of Braun) Looss, 1902m, 716.—Odhn., 1905, 343, 347.
- palliatum* (Looss, 1885) Looss, 1899b, 558, 560; 1902, 707, 708, 711, 715.—Daar, 1902, 653.—Odhn., 1905, 341, 342, 347, 348.
- rochebruni* (Poir., 1886) Looss, 1899b, 558; 1902m, 707, 811.—Odhn., 1905, 344, 346, 347.
- BRACHYCÆLIINÆ Looss, 1899, Dec., 607, 611, 612, 614; 1902, 839, 841.—Luehe, 1900, 561; 1901, 173.—Odhn., 1902, 40, 42.—Pratt, 1902a, 889, 902 (key); contains *Phanerosolus*, *Lecithodendrium*, *Pycnopus*, *Brachycœlium*; related genera *Cynatocarpus*, *Brandesia*.
- BRACHYCÆLINÆ Ward, 1901, 185.—Jægers., 1903a, 14.
- (BRACHYCÆLIUM) Duj., 1845a, 383, 388, 402 (subg. of Dist.), type crassicolle after Stiles & Hass., 1898a, 83, but arrectum after Luehe, 1899k, 536. Raised to generic rank by Stiles & Hass., 1898a, 83.
- arrectum* Duj., 1845a, 387, 403 (in *Lacerta viridis*; Rennes).—Stoss., 1895, 225 (to *Dicrocœlium*).
- brachysomum* (Crep., 1846) Stoss., 1892, 148, 189, 190, 191; 1899, 10 (to *Levinsonia*).
- claviforme* (Brand., 1888) Stoss., 1892, 148-149, 191. See *Brachycœlium*.
- clavigerum* (Rud., 1819) Duj., 1845a, 387, 404 (misdetetermined).—Stoss., 1889, 576 (to *Dicrocœlium*). See *confusus* Looss, 1894.
- crassicolle* (Rud., 1809) Duj., 1845a, 386, 404-405.—Cohn, 1903, 42.—Stiles & Hass., 1898a, 83 (designated type of *Brachycœlium*). See *Brachycœlium*.

(BRACHYCELIUM)—Continued.

- heteroporum* Duj., 1845a. 387, 402–403 (in *Vespertilio pipistrellus*; Rennes).—Looss, 1899b, 611 (type of *Pycnoporus*).
macrophallos (Linst., 1875) Stoss., 1892, 147, 190.
nigrovenosum (Bellingham, 1844) Looss, 1902m, 822.
oviforme (Poir., 1886) Stoss., 1892, 12–13, 40.
pygmæum (Levin., 1881) Stoss., 1892, 147 (in *Somateria mollissima*; Greenland), 189; 1899, 10 (to *Levinsonia*).
retusum Duj., 1845a, 386, 405–406 (in *Rana temporaria* at Rennes).
rubellum (Olss., 1868) Stoss., 1886, 60.
somateriæ (Levin., 1881) Stoss., 1892, 146, 189.
tacapeuse (Sons., 1894) Stoss., 1895, 215, 235.

BRACHYCELIUM (Duj., 1845a) Stiles & Hass., 1898a, 83 (type *crassicolle* after Stiles & Hass., *arrectum* after Luehe).—Baird, 1853a, 52.—R. Bl., 1891, 609.—Braun, 1892a. 663, 672; 1893a, 885, 909, 910; 1900h, 6.—Giard, 1897c. 955, 956, sp. in *Pelécypodes*; 1897d. 956–957.—Looss, 1899b, 535, 536, 611–614, 617, 618, 620, 622, 623, 625, 647; 1902m, 705, 768–775, 814, 815, 816, 822, 823.—Luehe, 1899k, 536 (type *arrectum*); 1900aa, 562, 563.—Mont., 1888, 38 (*Brachycelium*), 92, 105, 1892, 687; 1893, 43, 150.—Pratt, 1902a, 889, 903 (key).—Rail., 1896, 160 (renamed *Brachycæcum*).—Staff., 1903, 827, 828; 1905, Apr. 11, 684.—Stiles, 1901, 179, 196, 197, 198, 199, 200, 201, 202, 203.—Stiles & Hass., 1898a, 83, 97, 98 (type *Dist. crassicolle* Duj., 1845) (syns. *Dist. (Brachycelium)*, *Brachycæcum* Rail., 1896).—Stoss., 1892, 12; 1899, 7.—Ward, 1901, 175.

1845: *Distoma (Brachycelium)* Duj., 1845a, 383, 388, 402 (tld. *crassicolle*).

1888: *Brachycelium* Mont., 1888, 38, misprint.

1896: *Brachycæcum* Rail., 1896, 160, *Brachycelium* [not *Brachycælus*] renamed.

crassicolle (Rud., 1809) Looss, 1899b, 611, 612; 1902, 768, 769, 772, 774, 775, 813, 814, 815, 816, 818, 821, 822, 823, 832, 835.—Cohn, 1903, 42.—Luehe, 1900, 562.—Staff., 1903, 827, 828; 1905, Apr. 11, 693.

hospitale (Staff., 1900) Looss, 1902, 822.—Staff., 1903, 824–828, figs 4–5; 1905, 682 (int. of *Diemyctylus viridescens* and *Plethodon erythronotus*; Canada).

luteum (Ben., 1870) Giard, 1897c. 955; 1897d. 956, 957.—Caullery & Chappellier, 1906, 325.—Reported for *Donax*, *Scyllium canicula*, *S. stellare*.

nigrovenosum (Bellingham, 1844) Looss, 1902m, 822, as doubtful.
 species Giard, 1897d. 956–957 (in *Donax trunculus*, *Tellina fabula*, *T. tenuis*, *T. solidula*, *T. laticula*).—Leger, 1879h, 957–958.

BRACHYLEMUS E. Bl., 1847a, 295–302 (for *Brachylaimus*).—Dies., 1850a, 331.—Stiles & Hass., 1898a, 83, 84 (syn. of *Brachylaima* Duj., 1843).

cylindraceus (Zed., 1800) E. Bl., 1847a, 295–298, pl. 12, fig. 2.—Baird, 1853a, 51.—Dies., 1850a, 368 (to *Dist.*).—Looss, 1894a, 64 (to *Dist.*); 1899b, 600 (type of *Haplometra*).

erinacei E. Bl., 1847a, 300–302, pl. 9, fig. 2 (*Erinaceus europæus*; Paris).—Dies., 1850a, 335 (renamed *Dist. linguæforme*).

variegatus (Rud., 1819) E. Bl., 1847a, 298–300, pl. 13, fig. 1.—Looss, 1894a, 71 (to *Dist.*).—Type of *Hæmatolæchus* 1899 and *Pneumonæces* 1902.

BRACHYLAIMA Duj., 1843a, 338–341 (tld. *advena*).—Luehe, 1899k, 536.—Stiles & Hass., 1898a, 83–84, 96 (type *advena* = *Dist. migrans* 1845) (syns. *Dist. (Brachylaimus)* Duj., 1845, *Brachylæmus* Duj. of Bl.).

advena Duj., 1843a, 338–341 (in *Sorex*).—Stiles & Hass., 1898a, 83, 84, 96 (designated type) (syn. *Dist. migrans* Duj., 1845).

fulvum Duj., 1843a, 340–341 (in *musaraigne*).—Stiles & Hass., 1898a, 83 (in *Sorex araneus*).

(BRACHYLAIMUS) Duj., 1845a, 382, 388, 407–420 (*Brachylaima*, 1843, renamed, hence type *advena*), used as subg. of *Dist.* See also *Brachylaimus*.

æquale Duj., 1845a, 410.

alloysæ (Stoss., 1885) Stoss., 1886, 58.

andersoni (Cobbold, 1876) Stoss., 1892, 19, 37.

annuligerum (Nord., 1832) Stoss., 1886, 44.

(BRACHYLAIMUS)—Continued.

- arcuatum* Duj., 1845a, 410–411.
aristotelis Stoss., 1892, 14–15, 40.
ascidioides (Ben., 1873) Stoss., 1892, 16, 40.
baraldii (Sons., 1892) Stoss., 1895, 218–219, 235.
bergense (Olss., 1868) Stoss., 1886, 63.
bothryophoron (Olss., 1868) Stoss., 1886, 57.
carnosum (Rud., 1819) Stoss., 1886, 59.
caudatum (Linst., 1873) Stoss., 1892, 39.
characis (Stoss., 1886) Stoss., 1886, 59.
cirratum (Rud., 1808) Duj., 1845a, 413.
conjunctum (Cobbold, 1860) Rail., 1893a, 365.
conostomum (Olss., 1876) Stoss., 1886, 62.
corrugatum Duj., 1845a, 409–410.
crassiusculum (Rud., 1809) Stoss., 1892, 151–152, 194.
cymbiforme (Rud., 1819) Stoss., 1895, 215–216, 236.
depressum Stoss., 1883; 1886, 59.
didelphidis Par., 1896, 3–5, fig. 1a (in *Didelphis marsupialis azaræ*; Paraguay).
dimorphum (Dies., 1850) Stoss., 1886, 60.
elegans (Rud., 1802) Duj., 1845a, 414–415.
endemicum (Bætz, 1883) Stoss., 1892, 39, 40.
exasperatum (Rud., 1819) Duj., 1845a, 411.
fabenii (Mol., 1859) Stoss., 1886, 59.
fellis (Olss., 1868) Stoss., 1886, 57.
filum Duj., 1845a, 418.
flavescens (Ben., 1870) Stoss., 1886, 58 (in *Gobius minutus*).
globiporum (Rud., 1802) Duj., 1845a, 417.
globocaudatum (Crep., 1825) Duj., 1845a, 413–414.
instabile Duj., 1845a, 412.
leptostomum (Olss., 1876) Stoss., 1892, 17, 39.
lima (Rud., 1809) Stoss., 1892, 14, 39, 40.
linguatula (Rud., 1819) — ? —.
lorum Duj., 1845a, 407.
maculosum (Rud., 1802) Duj., 1845a, 412–413.
marginatum (Mol., 1858) Stoss., 1892, 149, 189.
megastomum (Rud., 1819) Stoss., 1886, 64.
mentulatum (Rud., 1819) Duj., 1845a, 415.
mesostomum (Rud., 1803) Stoss., 1892, 149–150, 193, 194.
micrococcum (Rud., 1819) Stoss., 1892, 150, 190.
migrans Duj., 1845a, 407–409 = *Brachylaima advena* Duj., 1843, renamed.
moleculum (Linst., 1880) Stoss., 1892, 150, 192.
monas (Rud., 1819) Parona, 1896, 12–13 (in *Siphonops annulatus*; Brazil).
mormyri (Stoss., 1885) Stoss., 1886, 59.
mülleri (Levin., 1881) Stoss., 1886, 61.
oblongum (Cobbold, 1858) Stoss., 1892, 16–17, 37.
obovatum (Mol., 1859) Stoss., 1886, 59.
oligoon (Linst., 1887) Stoss., 1892, 149–192.
plesiostomum (Linst., 1883) Stoss., 1892, 152, 192.
pseudostomum (Will.-Suhm., 1870) Stoss., 1895, 219–236.
recurvum Duj., 1845a, 410.
reticulatum (Wright, 1879) Stoss., 1892, 154–155, 192.
robustum (Lorenz, 1881) Stoss., 1892, 18, 38.
rubens Duj., 1845a, 411.

(BRACHYLAIMUS)—Continued.

- sanguineum* (Sons., 1894) Stoss., 1895, 217, 235.
serpentatum (Mol., 1859) Par., 1896, 18–19 (in *Sayris camperii*=*Scomberesox rondeletii*; Padova).
signatum Duj., 1845a, 415–416.
soccus (Mol., 1858) Stoss., 1886, 64.
solea Duj., 1845a, 417–418.
subflavum (Sons., 1892) Stoss., 1895, 216, 235.
tenuicolle (Rud., 1819) Stoss., 1892, 18–19, 39.
tereticolle (Rud., 1802) Duj., 1845a, 419–420.
umbrinae (Stoss., 1885) Stoss., 1886, 58.
validum (Linst., 1886) Stoss., 1892, 15–16.
varicum (Mueller, 1784) Stoss., 1886, 58.
variegatum (Rud., 1819) Duj., 1845a, 416–417.
vitellatum (Linst., 1875) Stoss., 1892, 154, 190.
vitta Duj., 1845a, 418.

BRACHYLAIMUS (Duj., 1845a) E. Bl., 1847a, 298 (*Brachylaima* renamed, hence type advena).—R. Bl., 1891, 609, 610.—Braun, 1892a, 643; 1893a, 885, 894, 909, 911; 1901b, 11; 1901e, 341, 342.—Giard & Billet, 1892, 614.—Johnston, 1902, 329.—Looss, 1899b, 535, 609.—Luehe, 1899, 530.—Mont., 1888, 92, 105; 1893, 43, 150.—Rail. & Marotel, 1898, 31, 38.—Sons., 1890, 141.—Stiles & Hass., 1898a, 84.—Stoss., 1892, 13; 1898, 32.—Volz, 1899, 231.—West, 1896, 323. See also (*Brachylaimus*).

BRACHYLEMUS Dies., 1850a, 331, for *Brachylaimus*, q. v.

- variegatus* (Rud., 1819) Dies., 1850a, 355 (to Dist.).—Molin, 1859, 828 (to Dist.).

BRACHYMETRA Stoss., 1904, 10 (m. parva) [not Mayr, 1865, insect].

- parva* Stoss., 1904, 10–12, fig. 1 (in *Rana esculenta*: Istria centrale).

BRACHYPHALLUS Odhn., 1905, 350, 356, 359 (tod. crenatus).—Nicoll, 1907, 84.

- crenatus* (Rud., 1802) Odhn., 1905, 349, 352–355, pl. 4, figs. 3–5 (includes *Fasc. crenata* Rud., 1802, 76, pl. 2, fig. 5; *Dist. crenatum* (Rud.) Rud., 1809a, 404, pl. 5, fig. 1; Mol., 1868, 48, pl. 5, figs. 96–98; *Dist. appendiculatum* p. p. Rud., 1819a, 404; *Dist. tectum* Linst., 1873, 104, pl. 5, fig. 4; *Dist. ocreatum* Mol. p. p. Lint., 1899, 288, pl. 35, figs. 16–24; *Hemimurus crenatu* (Rud.) Luehe, 1901, 24; *Dist. crenatum* Rud., 1810a, 376; Mol., 1859, 25, pl. 1, fig. 3); (hosts reported by Odhn. for Scandinavia: *Cottus scorpius*, *Pleuronectes limanda*, *Gasterosteus aculeatus*, *Ammodytes tobianus*, *Salmo salar*, *S. trutta*, *Osmerus eperlanus*); 1906, 62.—Nicoll, 1907, 72, 84, 88–89 (in *Ammodytes tobianus*).

BRANDESIA Stoss., 1899, 7, 10 (m. turgida).—Braun, 1900h, 6.—Looss, 1899b, 617, 623, 624–625.—Pratt, 1902a, 889, 903 (key), related to *Brachycoeliinae*—Staff., 1905, Apr. 11, 683, 684, 685, 686.—Stiles, 1901, 189, 190.

- turgida* (Brand, 1888) Stoss., 1899, 10.—Cohn, 1904, 235.—Kowal., 1902d, 27 [9].—Looss, 1899, 624, 775–777, figs. A. B.—Staff., 1905, Apr. 11, 684, 685.

BRAUNINA Heider, 1900a, 19–22, figs. a–d (*Hemistomidae*); 1900b, 19–22, figs. 2–d.—Pratt, 1902a, 908 (key).—Wolf, 1903, 603–626, 1 pl., 11 figs.

- cordiformis* Wolf, 1903, 623, 1 pl., 11 figs. (in *Squalus* sp; Rio Janeiro).

BRAUNININE Wolf, 1903, 622, 623, n. subf.

BUCEPHALIDE Poche, 1907, 125.

(BUCEPHALOPSIS) Dies., 1855a, 396 (m. haimeanus) subg. of *Bucephalus* Baer.—Ziegler, 1883, 540.

- aculeatus* Dies., 1858, 275, based on Wagener's *Furcocerce* in *Planorbis marginatus*.—Ziegler, 1883, 540.

- haimeanus* (Lacaze-Duthiers, 1854) Dies., 1855a, 396; 1858d, 275–276 (syns. *Bucephalus* (*Bucephalopsis*) haim. Lacaze-Duthiers; *Cerc. haim.* Moul.) (in *Ostrea edulis*, *Cardium rusticum*; Balearic Isles).—Tennent, 1906, 642.—Ziegler, 1883, 540.—See also sub *Bucephalus*.

BUCEPHALUS Baer, 1826a, 124-125 [not Smith, 1829, reptile] [m. polymorphus]; 1827b, 570-589 (m. polymorphus).—Biehringer, 1884, 20; 1888a, 231, 232, 235.—Brand., 1891d, 8.—Braun, 1892a, 589, 592, 599, 636, 640, 768, 769, 770, 771; 1893a, 823, 825, 834, 884, 892.—Burm., 1856a, 244, 245, 250.—Carus, 1835a, 94.—Cobbold, 1876, 304; 1879b, 453.—Dies., 1850a, 286, 294; 1855a, 395; 1858d, 271, 274.—Duj., 1845a, 478.—Erc., 1881e, 60; 1882a, 296.—Fil., 1854a, 6; 1857c, 22.—Garner, 1875a, 102 (in freshwater mussel).—Goldb., 1855a, 15.—Gronkowski, 1902a, 522 (15).—Hoyle, 1890, 539 (larva of Gasterost.), 540, fig. 4-F.—Jackson, 1888, 643, 651 (= Gasterost.; in Anodonta and oyster), 643, 654.—Kath., 1894a, 138.—Keber, 1852, —.—Lacaze-Duthiers, 1854a, 294 ff.—Leuck., 1863; 454, 495, 503, 512.—Looss, 1885b, 6; 1892a, 125; 1894a, 55, 252.—Mont., 1888, 9, 77, 79, 80, 92, 94; 1893, 6, 9, 10.—Moul., 1856a, 65, 121, 124.—Odhn., 1905, 293, 304.—Pag., 1857, 7, 10, 29, 52, 53.—Poche, 1907, 125.—Spengel, 1905, 258.—Uličný, 1878, 214.—Woods, 1875, v. 4 (29), Aug., 58-66, pls. 4-5.—Ziegler, 1883, v. 39 (4), Dec. 31, in 537-571, pls. 32-33, figs. 1-28; 1883, v. 6 (148), 10 Sept., 487-492; 1905, 36.

1855: *Eubucephalus* Dies., 1855a, 395 (m. polymorphus).

aculeatus Dies., 1858, 275 (in *Planorbis marginatus*) to (*Bucephalopsis*).

[*bellii*, see Smith, reptile.]

crux Levin., 1881a, 80-81, pl. 3, fig. 7a-j (in *Modiolaria discors*; Egedesminde).—Braun, 1893a, 834.—Odhn., 1905, 304.—Tennent, 1906, 641, 643 (in *Modiolaria discors*).

cucullus Ziegler, 1883, 540 (for *cuculus*).

cuculus McCrady, 1874, Dec. 3, 176-192, figs. 2, 1-8 (in *Ostrea virginiana*; Charleston, S. C.).—Braun, 1893a, 834.—Tennent, 1906, 641, 644-646, 682 (syn. of *B. haimeanus* Lacaze-Duthiers) (in oyster; Charleston, S. C.).—Ziegler, 1883, 540 (*cucullus*).

eculus McCrady, 1874, descr. of fig., misprint.

[*gutturalis*, see Smith, reptile.]

haimeanus Lacaze-Duthiers, 1854a, 294-302, pl. 6, figs. 1-10 (in *Ostrea edulis*, *Cardium rusticum*; Balearic Isles, Mahon, Cette).—Babcock, 1875a, 144, 145, 146, pl. 98, figs. 6-7.—Braun, 1893a, 834.—Caullery & Chappellier, 1906, 325.—Claparède, 1863, 10, 11 (to Cerc.).—Dies., 1855a, 379, 396, type of *B. (Bucephalopsis)*; 1858d, 276 to (*Bucephalopsis*).—Erc., 1881e, 41, 87 (*haimejanus*); 1882a, 277, 323 (*haimejanus*).—Fil., 1855b, 21.—Giard, 1874e, 485-487 (encystation) (in *Cardium rusticum*, *Ostrea edulis*; Mediterranean); 1874f, 375-377; 1874g, 276-278; 1875a, 466-467; 1897, 955.—Huet, 1889a, 145-149; 1893a, 40-41.—McCrady, 1874, 176, 178, 179, 180.—Moore, 1875a, in 50-57, pl. 3.—Moul., 1856a, 86, 87, pl. 5, fig. 7, 178 (in *Ostrea edulis*, *Cardium rusticum*; Balearic Isles, Mahon, Cette).—Pag., 1857, 10; 1862, 295, 298 to (*Bucephalopsis*), 300, 301.—Tennent, 1906, Feb., v. 49 (4), 635-690, pls. 39, figs. 1-17, pl. 40, figs. 18-39, pl. 41, figs. 41-43, 51 (larva of *Gasterost. gracilescens* in oysters, *Ostrea edulis*, *Cardium rusticum*).—Uličný, 1878, 214, 215, 216.—Vaulleuard, 1894, v. 8, 8-14 (in *Tapes decussatus*, *T. pullastra*); 1894, 343.—Villot, 1875, 478.—Ziegler, 1883, 539, 540, 567.—Also reported for *Belone vulgaris*, *Cardium edule*, *Mactra solida*.

haimejanus Erc., 1881e, 87; 1882a, 323 (for *haimeanus*).

intermedius Uličný, 1878, 211-217, pl. 6, fig. 6 (in *Anodonta cellensis*).—Braun, 1893a, 834.—Tennent, 1906, 641, 643 (in *Anodonta cellensis*).—Ziegler, 1883, 541.

[*jardinii*, see Smith, reptile.]

polymorphus Baer, [1826a specific name not given]; 1827b, 570-589, pl. 30, figs. 1-27 (in *Unio* and *Anodonta*).—Badcock, 1875a, 141-146, pl. 98, figs. 1-5; 1875b, 149-150.—Ben., 1858a, 1861a, 220.—Bettend., 1897a, 13; 1897, 317.—Biehringer, 1884, 3; 1888a, 230.—Braun, 1883a, 54; 1893a, 834, 835, 838, 847.—Claparède, 1863, 10, 11.—Crep., 1839a, 293.—Desmonceaux, 1868, 22.—Dies., 1850a, 294; 1855a, 379, 395 (in *Unio pictorum*, *An. anatina*, *A. cellensis*); 1858d, 274-275 (syn. *Cerc. polym.*) (in *U. pict.*, *An. cell.*, *A. anat.*).—Duj., 1845a, 478.—Erc., 1881e, 37, 38, 41, 44, 45, 60, 87; 1882a, 273, 274, 277, 280, 281, 296, 323.—Fil., 1855b, 21, 22; 1857c, 27, 31.—Gamb., 1896a, 72.—Garner, 1838, 830.—Giard, 1874e, 485, 486.—Hahn & Lefevre, 1884, 806.—Hessling, 1852, 315.—Hoyle, 1890, 540, fig. 4-e.—Jacobson, 301, pl. 8, figs. 1-3.—Jucl, 1889, 11.—Keber, 1851a, 99, 100; 1852a, 72.—Kuech., 1856c, 280.—

BUCEPHALUS—Continued.

Lacaze-Duthiers, 1854a, 297, 299, 300, 301.—Levin., 1881a, 80, 81.—Looss, 1885b, 19; 1892a, 122.—McCrary, 1874, 176, 178, 179.—Mont., 1888, 33, 77.—Moul., 1856a, 86, 145, 174, pl. 5 bis, fig. 6 (in An. anat., A. cell., U. pict.), see Cerc. polym.—Mueh., 1898, 11.—Nord., 1840, 548; 1840, 617, 630, 631.—Pag., 1857, 6, 8, 10, 27–28, pl. 3, figs. 2–8 (in An. anat., 1862, 300, 302.—Poche, 1907, 124, 125.—Sieb., 1839, 165; 1854, 14.—Stewart, 1875, July, 1–2, pl. 107.—Tennent, 1906, 638, 641, 643, 646, 655, 660, 662, 663, 678, 682 (in An. mutabilis var. anatina and cellensis, U. pict.).—Uličný, 1878, 214, 215, 216.—Wagener, 1857, 22, 45; 1866, 145.—Ziegler, 1883, 488, 491; 1883, 537, 539, 540, 541–567, pl. 32, figs. 1–12, pl. 33, fig. 17, 23, 25 (in An. mutabilis var. cellensis).

[*typus*, see Smith, reptile.]

BUNODERA Rail., 1896, Mar. 15, 160, Crossodera Duj., 1845 [not Gould, 1837, bird] renamed, hence type nodulosa.—Braun, 1900, 232.—Hass., 1896a, 7.—Heymann, 1905, 83, 89.—Looss, 1899, 580, 594, 595, 597, 598, 599, 604, 671; 1902, 453, 454, 760.—Odhn., 1905, 296.—Pratt, 1902a, 888, 898 (key).—Staff., 1904, May 3, 491.—Stiles & Hass., 1898, 84–86, 96 (syns. Dist. Crossodera) Duj., Crossodera Duj., 1860 [by Cobbold] [not Crossodera Gould, 1837, Aves] type Dist. nodulosum Zed., 1800=Fasc. luciopercae Mueller, 1776).

auriculata (Wedl, 1857) Osborn, 1903, 63, 64, 67, 70.

cornuta Osborn, 1903, 63–73, figs. 1–7 (crawfish, black bass, rock bass, and catfish in Lake Chautauqua, N. Y.); 1905, Jan. 31, 22.

linearis (Rud., 1793) Rail., 1896, 160.

lintoni Pratt in Lint., 1901b, 435 (syn. Dist. auriculatum of Lint. in Acipenser rubicundus).—(f. petalosum Lander.

nodulosa (Froelich, 1791) [Rail., 1896, 160] Looss, 1899b, 598; 1901l, 564; 1902m, 452, 453.—Engler, 1904, 186.—Heymann, 1905, 83, 85.—Kowal., 1902d, 26 (8); 1904, 24 (9) (in Perca fluviatilis; Galicia).—Osborn, 1903, 63, 64, 67, 68, 70, 71, 72.—Staff., 1904, May 3, 489–490 (in P. flavescens Mit.; Canada).

BUNODERINÆ Looss, 1902, 453.—Pratt, 1902a, 888, 898 (key), contains Bunodera, Tergestia.

CÆCINCOLA Marshall & Gilbert, 1905, 477, 478–481 (m. parvulus).

parvulus Marshall & Gilbert, 1905, 478–481, pl. 15, figs. 1–4 (in Micropterus salmoides; near Madison, Wis.).

CALCEOSTOMA Ben., 1858a, 1861a, 11, 57, 59–60, 194, 196 (m. elegans).—Ben. & Hesse, 1864, 121.—Brand., 1894a, 305, 306.—Braun, 1890a, 411, 412, 416, 443, 451, 468, 472, 478, 483, 484, 492, 512, 514, 516, 517, 523, 542; 1893a, 890.—Dies., 1858c, 379 (syn. of Dactylogyrus calceostoma Wagener); 1859c, 441 (1 sp. elegans=calceostoma).—Gamb., 1896a, 73.—Hoyle, 1890, 539 (on Sciaena aquila).—Jackson, 1888, 642, 646, 648, 654.—MacLaren, 1904, 598, 599, 600.—Mont., 1888, 14, 52, 84, 86, 101, 107; 1891, 108; 1892, Oct. 7, 213 (g. of Calceostominae); 1903, 336 (subf. Calceostominae); 1905, 65, 66, 67, 68.—Par. & Perugia, 1890, 12; 1890, S. sp.—Pratt, 1900a, 646, 654 (key), 657, fig. 49.—St.-Remy, 1898, 524, 564, sp.—Sons., 1890, 172; 1890, 174–176.—Tasch., 1879, 69; 1879, 265 (syn. Dactylogyrus Wag.).

1859: Calceostomum Dies., 1859c, 441, for Calceostoma.

elegans Ben., 1858a, 1861a, 60–63, 169, 170, 189, 190, 196, pl. 7, figs. 1–8 (in Sciaena aquila; Belgium).—Ben. & Hesse, 1864, 125–126.—Braun, 1890a, 417, 452, 543, 549, 552.—Dies., 1859c, 441.—Jackson, 1888, 646.—Mont., 1888, S. 10.—Pratt, 1900a, 657, fig. 49.—St.-Remy, 1898, 564.—Sons., 1890, 174, 175–176 (in Sc. umbra); 1891, 263 (in Sc. um.).—Tasch., 1879, 265 (syn. Dactylogyrus calceostoma Ben. (in Sci. aq.).

inermis Par. & Perugia, 1889, 747 (in Corvina nigra); 1890, 747 (in Corv. nig.); 1890, S.—Parona, 1894, 139, Genova.—Braun, 1890a, 418, 543, 549, 550; 1891d, 422.—Sons., 1890, 174, 175–176 (in Corv. nigra, Umbrina cirrosa); 1891, 263 (in Um. cirrhosa).

CALCEOSTOMIDÆ Par. & Perugia, 1890, 19 [as subf.].—Mont., 1903, 336 [raised from subf. to f. rank] (subf. 1 Calceostominae (g. Calceostoma, Fridericianella)).

CALCEOSTOMINÆ Mont., 1892, Oct. 7, 213 (subf. of Gyrodactylidæ); 1903, 336 (f. Calceostomidæ).—Braun, 1893a, 890.—Gamb., 1896, 73.

CALICOTYLE Dies., 1850a, 290, 431, 651 (m. *kroyeri*).—Braun, 1890a, 412, 415, 426, 435, 442, 447, 452, 454, 455, 468, 471, 472, 478, 483, 484, 491, 492, 511, 515, 516, 517, 523, 530, 531; 1893a, 890; 1896b, 7; 1899c, 80–82, 1 fig.—Cerf., 1894, 947; 1898b, 347, 352, 356, 362 (Calycotyle).—Goldb., 1855a, 20.—Goto, 1894a, 226–227; 1893a, 798.—Haswell, 1893e, 112.—Hoyle, 1890, 539.—Ijima, 1884c, 638.—Jackson, 1888, 646, 647, 650, 653.—Juel, 1889, 33.—Kerbert, 1881a, 572 (Callicotyle).—Looss, 1892a, 72.—Mont., 1888, 10, 11, 13, 37, 52, 57, 59, 65, 66, 84, 86, 88, 97, 98 (Callicotyle); 1888, 56, 57, 58, 60 (Callicotyle); 1891, 109, 127; 1903, 336 (subf. Calycotylinæ); 1905, 70.—St.-Remy, 1898, 523, 540.—Stoss., 1898, 9.—Tasch., 1878, 176 (Callicotyle); 1878, 573; 1879, 49, 50, 54, 57, 58, 60, 62, 64, 65, 66, 68; 1879, 236.

1850: Calycotyle Dies., 1850a, 650.

1858: Callicotyle Dies., 1858e, 313, 362.

1888: Callicotyle Mont., 1888, 56, 57, 58, 60.

1902: Callicotyle Scott, 1902, 299–300.

1905: Callocotyle Scott, 1905, 117.

kroyeri Dies., 1850a, 431 (on *Raja radiata*; Kattagat).—Braun, 1890a, 410, 418, 420, 428, 434, 438, 449, 456, 461, 487, 512, 514, 531, 547, 551; 1899, 80, 81.—Cerf., 1894, 948.—Cunningham, 1887a, 278.—Goto, 1891a, 159, 184.—Ijima, 1884c, 638.—Juel, 1889, 14, 37.—Kath., 1894a, 152.—Kroyer, 1852–53a, 961 (*kroyeri*) (in *Raja radiata* Don.).—Looss, 1885b, 5, 18.—Mont., 1888, 7, 15, 53 (Callicotyle); 1891, 108, 111, 116, pl. 6, figs. 33–35.—Par. & Perugia, 1890, 6.—Pratt, 1900a, 656, fig. 20, 657.—Stoss., 1898, 9–10.—Tasch., 1878, 176 (Callicotyle); 1878, 573 (Callicotyle); 1879, 48, 49, 52, 55, 56, 61.—Wierzejski, 1877, 18 Oct., 550–561, pl. 31.—Ziegler, 1883, 545.

kröyeri Wierzejski, 1877, 550, pl. 31.—Hoyle, 1890, 539.

krøyeri Hoek, 1856a, 507–512; 1857a, 157–160, 1 fig.

mitsukurii Goto, 1894a, 227–229, pl. 19, t. h. *Rhina* sp.; Mitsugahama.—Braun, 1899, 80.—Cerf., 1898b, 341.

stossichi Braun, 1899, 80–82, 1 fig. (in *Mustelus laevis*; Berlin Aquarium).

CALICOTYLEA Dies., 1850a, 290, 431, subtribe of Monocotylea.—Goldb., 1855, 20.

CALICOTYLINÆ Mont., 1903; 1905, 70.

CALLICOTYLE Dies., 1858e, 313, 362 (see Calicotyle).—Ben. & Hesse, 1864, 66, 79.—Carus, 1863, 477.—Mont., 1893, 118.—Scott, 1902, 299–300.—Stoss., 1885, 162.

kroyeri (Dies., 1850) Dies., 1858e, 362 (on *Raja radiata*, *R. batis*).—Ben. & Hesse, 1864, 79.—Mont., 1888, 7, 15, 53.—Tasch., 1878, 176; 1878, 573.

kröyeri Wierzejski, 1877, 550–551.—Scott, 1902, 299–300, pl. 13, fig. 30 (on *Raja clavata*).

krøyerii Ben., 1870, 16.

CALLIOCOTYLE Scott, 1902, 299–300, for Calicotyle, q. v.

kröyeri (Wierzejski, 1877) Scott, 1902, 299–300, pl. 13, fig. 30 (in *Raja radiata*, *R. clavata*).

CALLOCOTYLE Scott, 1905, p. 117, for Calicotyle, q. v.

kröyeri (Wierzejski, 1877) Scott, 1905, 117.

CALLODISTOMUM Odhn., 1902, 154 (m. *diaphanum*).—Pratt, 1902a, 888, 900 (key), related to Anaporrhutinæ.

diaphanum Odhn., 1902, 154 (in *Polypterus bichir*; White Nile River).

CALYCODES Looss, 1901l, 565 (m. *anthos*); 1902m, 462 (*καλυκώδης*, knospenartig), 463, 839.—Pratt, 1902a, 888, 896 (key).

anthos (Braun, 1899) Looss, 1901l, 565–566; 1902m, 458–463, 869, pl. 21, figs. 17, 18 (includes Dist. *anthos* Braun, 1899, 720; 1901, 27, pl. 2, figs. 20–22, 24, 31).

CALYCOTYLE Dies., 1850a, 650, for Calicotyle, q. v.

kroyeri (Dies., 1850) St.-Remy, 1898, 540, 541 (in *Rhombus maximus*).

mitsukurii (Goto, 1894) St.-Remy, 1898, 540–541.—Cerf., 1898b, 341.

CALYCOTYLINÆ Mont., 1903, 336 (subf. of Monocotylidæ).

CAMPULA Cobbold, 1858b, 168; 1859d, 363 (m. oblonga).—Braun, 1893a, 885, 894; 1900g, 249–250, 254; 1901b, 34, 37, 38; 1902b, 5 pp.—Jackson, 1888, 648.—Looss, 1899, 558, 559, 560; 1901, 658; 1901, 208; 1902, 504, 708, 709, 715, 717, 718, 719, 730, 775–778.—Mont., 1888, 92; 1893, 153.—Odhm., 1905, 339, 344.—Pratt, 1902a, 887, 893 (key).—Stiles, 1901, 203, 204, 205.—Stiles & Hass., 1898, 85, 88, 97 ([error] syn. *Opisthorchis* R. Bl., 1895).

bilis (Braun, 1790) Rail., 1898, 412.

crassiuscula var. *janus* (Kowal., 1898) Rail., 1898, 412.

felinea (Rivolta, 1884) Kholodk., 1898, 354–355.—Type of *Opisthorchis*.

janus (Kowal., 1898) Rail., 1898, 412.

oblonga Cobbold, 1858b, 168, pl. 33, figs. 84–85 (in *Delphinus phocaena*) 1860a, 4; 1879, 419.—Braun, 1900g, 249–254, figs. 1–3; 1902b, 5.—Looss, 1899b, 558, 559, 560; 1902m, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 775, 776, 777, 778.—Mont., 1893, 44.—Stiles, 1901, 203, 204, 205.—Stiles & Hass., 1898, 85, 88, 97 (type of *Campula*).—Stoss., 1892, 16 (to Dist.).

*palliat*a (Looss, 1885) Looss, 1901, 208.—Type of *Brachycladium*.

poturzyensis (Kowal., 1898) Rail., 1898, 412.

simulans poturzyensis (Kowal., 1898) Rail., 1898, 412.

CAPSALA Bosc, 1811, 384–385 (m. martinieri).—Ben., 1858a, 1861a, 11, 38.—Blainv., 1828, 568–569.—Braun, 1890a, 518.—Dies., 1850a, 428 (syn. of *Trist.* Cuv. and pp. syn. of *Trochopus* Dies.).—Johnston, 1865, 30, 33.—Encycl. méthodique, 1824, 164.—Massa, 1906, 51 (of Nord., syn. of *Trochopus*).—Nitzsch, 1826, 150–151.—Nord., 1840, 602.—Tasch., 1878, 563, 566 (syn. of *Trist.*).

coccinea (Cuv., 1817) Blainv., 1828a, 569.—Baird, 1853a, 42.—Dies., 1850a, 429 (to *Trist.*).—Moquin-Tandon, 1846, 396.—Tasch., 1878, 567 (to *Trist.*).

elongata (Nitzsch, 1826) Nord., in Lam., 1840, 602 (syn. *Nitzschia elegans* Baer).—Baird, 1853a, 42 (includes: *Hirudo sturionis*, *Phylline hippoglossi*, *Trist. elongatum*, *Nitzschia elegans*).—Dies., 1850a, 426 (syn. of *Nitzschia elegans*).—Johnston, 1865, 33.

maculata (Rud., 1819) Nord. in Lam., 1840, 602.—Dies., 1850a, 430 (to *Trist.*).—Tasch., 1878, 567 (to *Trist.*).

martinieri Bosc, 1811, 384–385 (in *Diodon* sp. incerta).—Blainv., 1828a, 569.—Dies., 1850a, 430 (syn. of *Trist. maculatum*).—Moquin-Tandon, 1846, 396–397.—Nitzsch, 1826, 150.—Tasch., 1878, 567 (to *Trist.*).

papillosa (Dies., 1836) Nord. in Lamarck, 1840, 602 (in *Xiphias gladius*).—Dies., 1850a, 431 (to *Trist.*).—Stoss., 1898, 6.—Tasch., 1878, 567 (to *Trist.*).

rudolphiana (Dies., 1850a) Johnston, 1865, 33.

sanguinea Blainv., see Dies., 1850a, 429 (syn. of *Trist. rudolphianum*).—Nord., 1840, 602 (syn. *Trist. coccineum* Rud.) (in *Xiphias*).—Stoss., 1898, 5.—Tasch., 1878, 567 (syn. of *Trist. molæ* Blanch.).

tubipora (Dies., 1835) Nord. in Lamarck, 1840, 602.—Dies., 1850a, 428 (type of *Trochopus*; renamed *T. longipes*).—Massa, 1906, 53 (to *Trochopus*).—Mont., 1891, 123.—Stoss., 1898, 7.—Tasch., 1878, 568 (to *Trist.*).

CAPSALIDE Baird, 1853a, 41.—Johnston, 1865, 32, 299.

CATADISCUS Cohn, 1904, 243 (m. dolichocotyle).

dolichocotyle (Cohn, 1903) Cohn, 1904, 242–243.

CATATROPIS Odhn., 1905, 366, 367 (tod. verrucosa).

verrucosa (Frölich, 1789) Odhn., 1905, 366–370, fig. 4, pl. 4, fig. 10 (includes *Fasc. verrucosa* Frölich, 1789, 112, pl. 4, figs. 5–7; *F. anseris* Gmelin, 1790a, 3055; *Monost. verrucosum* Zed. of Levin., 1881, 78; ? e. p. *Notocotyle verrucosum* Frölich of Mont., 1892, 40); in *Somateria mollissima*, *S. spectabilis*, *Mergus serrator*; west coast of Sweden and Arctic region; also in *Anser domesticus*, *A. cinereus*, *A. leucopsis*, *Cygnus musicus*, *Bucephala clangula*, from Pommern.

species from *Spatula clypeata*; Egypt.—Odhn., 1905, 369, see Looss, 1899b, 664.

CATHEMASIA Looss, 1899b, Dec., 562–563 (tod. hians); κατά nach unten; ἡ αἰματιά die Dornen.—Braun, 1901b, 33; 1901g, 896; 1902b, 4.—Pratt, 1902a, 887, 896 (key).—Stoss., 1901, 93 (5).

fodicans Braun, 1901g, 896–897 (in *Sterna nigra*; Vien. Mus.), 631; 1902b, 4, 5 (in *S. nig.*).

hians (Rud., 1809) Looss, 1899b, 563 (of Mueh.).—Braun, 1902b, 5.—Stoss., 1901, 93 (5).

- CATOPTROIDES Odhn., in Looss, 1902m. 857 (Gorgoderinae), 861, 862 (tod. spatula).
spatula (Odhn., 1902) Odhn. in Looss, 1902m, 857, 862.
spatulaforme (Odhn., 1902) Odhn. in Looss, 1902m, 857.
- CENTROCESTINE Looss, 1899b, 586.—Jägers., 1903a, 14.—Pratt, 1902a, 888, 894 (key), contains Centrocestus, Ascocotyle; related genera, Acanthocasmus, Anoiktastoma.
- CENTROCESTUS Looss, 1899b, Dec., 584, 586 (m. cuspidatus); τὸ κέντρον, spine; ὁ κέστρος, Gürtel; 1902m, 832, 833.—Braun, 1902b, 30.—Jägers., 1903a, 14.—Pratt, 1902a, 888, 894 (key).
cuspidatus (Looss, 1896) Looss, 1899b, 582, 584.
- CENTRODERMA Luehe, 1901, 59 (tod. spinosissimum).
spinosissimum (Stoss., 1883) [Luehe, 1901d, 59].
- CENTROVARIUM Staff., 1904, May 3, 493 (m. lobotes).
lobotes (MacCallum, 1895) Staff., 1904, May 3, 493 (in Esox lucius, Stizostedion vitreum).
- CEPHALOBDELLIDEA Dies., 1850a, 291 (subtribe of Monocotylea to contain Astacobdella, Peltogaster, Pachybdella, Trachelobdella, Podobdella, Pontobdella, Ichthiobdella, Branchiobdella), 433, 650.—Goldb., 1855, 20.
- CEPHALOGONIMINE Looss, 1899b, Dec., 628; 1900, 561.—Luehe, 1901, 487-488.—Pratt, 1902a, 889, 901 (key), includes Cephalogonimus, Emoleptalea, Prosthogonimus; related genus Stromylorema.
- CEPHALOGONIMUS Poir., 1886, 22 (m. lenoiri) κεφαλή, γόνιμος.—Braun, 1892a, 642, 645, 696, 794, 705, 713, 715, 733; 1893a, 885, 886, 890, 893, 909, 911; 1895, 138; 1900h, 3; 1902b, 68.—Looss, 1894a, 173, 174; 1899b, 536, 538, 541, 625, 626-627, 628, 721.—Luehe, 1899, 539; 1900, 555.—Moniez, 1896, 89.—Mont., 1888a, 15, 34, 92, 104; 1892, Oct. 7, 214 (gen. of Distominae); 1893, 82, 95, 154, 157; 1896, 167.—Neumann, 1892, 345.—Pratt, 1902a, 889, 901 (key).—Stiles & Hass., 1898a, 85-86, 96.—Stoss., 1892, 4; 1898, 23.
americanus Staff., 1902, 5 Nov., 719-725, 1 pl., figs. 1-4 (in Rana virescens; Ashbridge's Bay, Toronto; May; also ? R. clamata); 1902, 30 Dec., 844; 1905, July, 52; 1905, Apr. 11, 687 (int. R. vir.; R. clamata).
lenoiri Poir. [1885, 3, pl. 2, figs. 1-2;], 1886, 22-24, pl. 2, figs. 1-3 (in Tetrathyra vaillantii Roch; Sénégal).—Braun, 1892a, 734; 1899b, 715; 1902b, 68.—Looss, 1899b, 626, 627; 1902m, 418 (in Trionyx nilotica). 783.—Luehe, 1899, 539.—Mont., 1893, 83, 102, 105, 106, 107, 157; 1896, 167 (lenori).—Stiles & Hass., 1898a, 85, 96.—Staff., 1902, 719, 725.—Stoss., 1895, 213.
lenori Mont., 1896, 167, for lenoiri.
ovatus (Rud., 1803) Stoss., 1892, 144; 1896, 126; 1898, 23; 1902, 13 (of 1896, 126, syn. of Cyclocœlum mutabile Zed.).—Hass., 1896a, 2 (syns. Fasc. ov. Rud., Dist. ov. (Rud.); D. bursicola Crep.) (in Gallus dom.).—Looss, 1899b, 629 (type of Prynopnion), 720, 721.—Luehe, 1899, 539 (type of Prosthogonimus).—Mont., 1893, 157.—Rail., 1893a, 368.—Sons., 1890, 134.—Stiles & Hass., 1898a, 85.—Reported also for Accipiter nisus, Anser cinereus dom., Ardea cinerea, Bucephala clangula, Buteo vulgaris, Corvus cornix, Gallinago scolopacina, Harelda glacialis.
pellucidus (Linst., 1873) Rail., 1890, 138; 1893a, 369.—Braun, 1902b, 68.—Hass., 1896a, 2 (in Gallus dom.).—Looss, 1894a, 174.—Mont., 1893, 157.—Stiles & Hass., 1898a, 85.
- CERATIUM Schrank, 1793.—Nitzsch, 1827, 69, contains Cerc. tripos [cf. Ceratium for Keratella Bory, 1824].
- CERCARIA Mueller, 1773, 64-70 (contains gyrinus, catellus, podura, lupus, lemna, cyclidium, tenax, pleuronectes) [apparently lemna is type; cf. Braun, 1889a, 312, 315]; 1786.—Abildg., 1793, 88.—Aitken, 1866, 801, 806, 837; 1872, 144, 148, 204.—Assenova, 1899, 64-65.—Ben., 1882b, 14.—R. Bl., 1888a, 551, 557, 558, 559, 560, 561, 562, 604, 605, 610, 620, 627, 628, 647; 1890h, 2-3.—Bojanus, 1818a, 729-730 [688-689].—Bory de St. Vincent, 1823a, 354-355; 1823b, 355-356 (cercariées); 1824d, 189-191.—Bosc, 1802a, 223-224.—Braun, 1889a, 312 (only malleus and lemna of Mueller's original species of 1773 are true Cercaria); 315 (only inquieta and lemna of Mueller's, 1786, Cercaria are true Cercaria); 1890a, 515; 1892a, 767, 775; 1893a, 884; 1893b, 183 (of Dist. recurvatum Linst., in Physa alexandrina).—Bruguère, 1792, 456, 458.—Burm., 1837, 529; 1856a, 246, 250.—Cobbold, 1858a, 9 (structure); 1859d, 365 (in Cervus axis).—Dadai, 1888c, 107-109; 1888e, 105-106, pl. 3, fig. 16; 1888f, 84-86, pl. 3, figs.

CERCARIA—Continued.

- 11, 13 (Gulf of Naples); 1888g, 107–109, pl. 3, figs. 11, 13.—Dies., 1850a, 286, 293 (of Abildg., syn. of Cheilost.), 294 (of Nitzsch, syn. of Malleolus), 295–298, 299 (of Nitzsch, syn. of Histriionella); 1855a, 377–400 (revision); 1858d, 239–290, 245–246.—Duj., 1845a, 475–478; 1845b, 57–58.—Eichwald, 1829a, 247.—Fewkes, 1822a, 134–145 (with caudal setæ); 1882b, 192.—Gmelin, 1790a, 3891.—Goldb., 1855a, 16.—Herbst, 1787a, 19; 1789a, 129.—Hogg, 1870a, 232–235, pl. 50, figs. 1–3.—Jackson, 1888, 643, 651, 652, 653.—Johnston, 1865, 18.—Lereboullet, 1847a, 300 (migrations); 1847b, 266 (in insects).—Lespès, 1857b, 113–117, figs. 11–16 (of marine mollusks).—Leuck., 1863, 34, 73, 74, 493; 1879a, 41, 96; 1886d, 31, 72, 376.—Lint., 1905, 333, 401 (in *Monacanthus hispidus*).—Looss, 1892a, 124.—Mont., 1888, 4, 14, 24, 35, 37, 44, 45, 46, 74, 76, 79, 83, 94; 1892, 38.—Mueller, 1786, 119; 1850, 496.—Moul., 1856, 123.—Nitzsch, 1827, 66–69.—Nord., 1840, 617, 630–632.—Pag., 1857, 3, 4.—Parkes, 1891, 267.—Perroncito, 1879, 7–9 (in *Rana esculenta*); 1880, 454; 1884, 154; 1885, 208–209.—Piana, 1882, 12 pp. (of mollusks); 1882, v. 5.—Quintart, 1905, 724–725 of *Barleeia rubra* (Adams).—Schrunk, 1803, 20.—Sieb., 1839, 153; 1850, 668.—Sons., 1884, 15 Dec., 57–61 (cellules à bâtonnets).—Steenstrup, 1842, 28.—Tasch., 1879, 233.—Vaney, 1901, 29 Apr., 1062–1064; 1901, 105 (in land mollusks).—Villot, 1875, 479 (in *Conus mediterraneus*).—Wagener, 1834, v. 27 (2), 131–132, pl. 1, fig. 4; 1857, 21.—Ward, 1903, 863, 864.—Wagner, 1883, 120.
- 1888: *Cercavia* Mont., 1888, 80, misprint.
- I. Baer, 1827b, 621, pl. 31, figs. 1–4.—Dies., 1850a, 295 (syn. of *Cerc. vesiculosa*).
- II. Baer, 1827b, 622, pl. 31.—Dies., 1850a, 296 (syn. of *Cerc. chlorotica*).
- III. Baer, 1827b, 623, pl. 31, fig. 3.—Dies., 1850a, 296–297 (syn. of *Cerc. brunnea*); 1855a, 387.
- V. Baer, 1827b, 625, pl. 31, figs. 5a, a.—Dies., 1850a, 299 (syn. of *Histriionella ephemera*).
- VI. Baer, 1826a; 1827b, 627, pl. 31, figs. 6a, 6b.—Dies., 1850a, 295 (syn. of *Malleolus furcatus*).
- VII. Baer, 1827b, 629, pl. 31, figs. 7a–b.—Dies., 1850a, 297 (syn. of *Cerc. fallax*); 1855a, 388.
- acerea* Biehlinger, 1884a, 3 (in *Onchidium carpenteri* Stearns).—Braun, 1892a, 807 (in *O. carp.*).
- aculeata* Erc., 1881. See Par., 1894, 163 (in *Lymnæa auricularia*; Bologna).
- affinis* Eichwald, 1829a, 247–248, pl. 1, fig. 15a–c (in *Lymnæus stagnalis*).
- agilis* Fil., 1857c, 4–5, pl. 1, fig. 2 (in *Lymnæus stagnalis*; Turin).—Ben., 1858a, 1861a, 215, 216.—Dies., 1858d, 248–249 to (*Gymnocephala*).—Par., 1894, 162.
- agilis* Leidy, 1858a, 110 (free in Delaware River); 1904a, 111.
- alata* (Hemp. & Ehrenberg, 1828) Moul., 1856a, 213.
- alba* Erc., 1881e, 12 (for *C. brunnea* var. Dies.); 1882a, 248.
- amphistomi subclavati* Ben., 1858a, 82 (in *Cyclas cornea*, etc.).—Dies., 1859c, 435 (syn. of *Diplodiscus subclavatus*).—Erc., 1881e, 24, 35; 1882a, 260, 271.—Gerv. & Ben., 1859, 212.—Moul., 1856a, 20, 95, 106–107, 125, 208–211, pl. 6, fig. 10 (syns. *Redia gracilis* Fil., 1837, *Diplodiscus diesingii* Fil., *Diplocotyle mutabile* Dies.) (in *Planorbis nitidus*; Ticini; P. vortex; Moncalier).
- arcuata* Steenstrup.—Erc., —.—See Par., 1894, 164 (in *Lymnæa obscura*, L. stagnalis; Bologna).
- armata* Sieb., 1837, 187 (based on Wagener, 1834, 131); [1835, 336;] 1850, 646, 669; 1854, 18, 21, 26, 27, 28.—Baillet, 1866b, 9, 92, 93, 94, 96.—Ben., 1858a, 1861a, 91, 92, 96, 168, 180, 220.—Biehlinger, 1884, 2, 11, 14, 17, 24, 25.—Braun, 1892a, 598, 634, 636, 642, 701, 769, 771, 797, 806, 807, 809, 810, 814; 1893a, 820, 822, 829, 839, 848, 859, 963; 1900, 225.—Cobbold, 1879b, 454.—Desmonceaux, 1868, 21.—Dies., 1850a, 298 (includes *Dist. tarda*); 1855a, 377, 381, 388 to (*Xiphidiocercaria*) (in *Lymnæus stagnalis*, *Planorbis corneus*); 1858d, 251–252 to (*Acanthocephala*), larva of *Dist. endolobum* Duj. (in *Plan. corn.*, *Lymn. stag.*, *Paludina impura*), 259 (of Fil., 1855b, 305, pl. 1, figs. 2–4, syn. of *C. (Acanthocephala) micrantha* Dies.); 1859c, 434.—Dowker, 1882a, 9, 11.—Erc., 1881e, 13, 15, 18, 21–23, 48, pl. 1, figs. 32–37; 1882a, 249, 251, 254, 257–259, 284; 1881e, 19–21; 1882a, 255–257 (of Steenstrup).—Fil., 1854a, 6, 7, 8, 9, 10, 12, 22, 24; 1855b, 3–5, 7, 20, 21, 23, pl. 1, figs. 1–4 (in *Lymn. pal.*; Mon-

CERCARIA—Continued.

- calier); 1856a, 257; 1857c, 3, 16, 32.—Florance, 1866a, 4, 11.—Fraipont, 1880a, 397; 1880c, 417, 419, 441; 1881b, 4; 1883a, 35.—Hahn & Lefèvre, 1884a, 516.—Harz, 1881c, 4.—Hoyle, 1890, 538 (cf. *Dist. signatum*: D. muris).—Juel, 1889, 15.—Kath., 1894a, 136, 139.—Kerbert, 1881a, 556.—Knoch, 1862, 100, 103.—Leuck., 1863, 73, 504, 506, 508, 510, 511, 515, 522, figs. 146, 168, 175, 176, 177; 1879a, 96.—Linst., 1873, 1 (larva of *Dist. endolumbum* Duj.); 1887, 98, 99, 100; 1887, 102 (syn. of *Dist. ascidia* Ben.).—Looss, 1885b, 19; 1892a, 128; 1894a, 90 (armatæ), 237, 252.—Macé, 1882, 61.—Mont., 1888, 26, 41, 45, 77, 78, 80; 1888, 196, 197.—Moul., 1856a, 77 (*Lymn. stag.*, *Plan. corn.*), 78–79, pl. 5, figs. 2–4, 80, 102, 103, 116, 118, 146–152, pl. 5, bis fig. 10, 153, 154, 155, 156, 162, 163, 186, 217, 226, 227, 234 (in *Pal. imp. Valette*: Berlin; *Lymn. stag.*, *Plan. corn.*, *Lymn. palustris*; *Moncalier*).—Nord., 1840, 631.—Pag., 1857, 9, 18–19, 39 (in *Lymn. stag.*).—Par., 1894, 162.—Roewer, 1906, 217.—Rossbach, 1906, 363.—Schwarze, 1886, 63.—Sons., 1897, 253.—Steenstrup, 1842, 42–47, 51, 57, 78–94, pl. 3, figs. 1–6.—Stoss., 1892, 21.—Tennent, 1906, 661.—Valette St. George, 1855, 18, pl. 1, figs. P–Q.—Villot, 1882, 507.—Vogt, 1878, —, fig. 33.—Wagener, 1834, 131, pl. 1, fig. 4; 1857, 22.
- armata minor* (*Distomi retusi*) Ben., 1858, 98, pl. 11, figs. 9–27 (in *Lymnæus stagnalis*; Belgium).—Dies., 1859c, 434 (syn. of *Dist. retusum*).
- armatæ* Looss, 1894a, 90, not as specific name, but as descriptive of several forms and used in the plural.
- bilineata* Haldemann, 1840a, 3 (in *Limnea catascopium*; Camden on Delaware).—Dies., 1850a, 300 (to *Histrionella*).
- bi-partita* Sons., 1897, 253 (in *Limnæa palustris*; Pisa); 1897, 4.
- brachysoma* Villot, 1878, 27–28, pl. 9, figs. 1–3 (in *Anthura gracilis* Leach).—Mont., 1888, 94 (larva of *Dist. brachysoma*).
- brachyura* Fil., 1837a, 337, figs. 8–14 (in *Planorbis submarginatus*: Pavia), teste Par., 1894, 161 (in *Plan. submarg.*; Pavia), see next entry.
- brachyura* Dies., 1850a, 296 (*Dist. polymorphum* Fil., 1837a, 337, figs. 8–14, renamed) (in *Planorbis submarginatus*; Ticini); 1855a, 386 to (*Eucercaria*); 1858d, 257, to (*Acanthocephala*) (syns. C. (*Eucerc.*) br.; (in *Plan. submarg.*; Ticini; *P. nitidus*, *P. vortex*).—Moul., 1856a, 213 (syn. *Dist. polymorphum* Fil., 1837).
- brachyura* Lespès, 1857b, 117, pl. 1, fig. 15 (in *Trochus cynereus*).—Braun, 1893a, 831.—Dies., 1858d, 257 syn. of C. (*Acanthocephala*) *pachycerca*.—Pag., 1862, 297 (in *Trochus cinereus*).—Villot, 1875, 479 (in *Trochus cinereus*).
- brevicaudata* Piana, 1882 (in *Helix carthusiana*; Reggio Em.) teste Par., 1894, 161, 622.
- brunnea* Dies., 1850a, 296–297 (*Cerc. III.* Baer. 1827b, 623, pl. 31, renamed) (in *Limnæus stagnalis*; *Regiomontii*); 1855a, 387 to (*Eucercaria*); 1858d, 247, to (*Gymnocephala*), syn. C. (*Eucerc.*) br.; (in *Lymn. stag.*).—Baillet, 1866b, 96.—Ben., 1858a, 1861a, 89, 180 (syn. of *Dist. echinata*).—Erc., 1881e, 8–9, 11, 12, pl. 1, figs. 3–9; 1882a, 244–245, 247, 248 (in *Paludina vivipara*).—Linst., 1887, 104.—Moul., 1856a, 80–81, 118, 157–158 (in *Lymn. stag.*).—Par., 1894, 162 (in *Pal. vivip.*; Bologna, Erc.).
- buccini mutabilis* (Fil., 1855) Dies., 1858d, 266, to (*Acanthocephala*) (syn. *Dist. bucc. mutab.* Fil., 1855b) (in *Buccinum* (*Nassa*) *mutabile*; Genoa).—Mont., 1888, 75.—Moul., 1856a, 85, 194, 168.
- bucephalus* Erc., 1881e, 40, 41–44, 60, 87, pl. 1, figs. 38–42; 1882a, 276, 277–280, 296, 323 (from *Unio pictorum*).—Braun, 1893a, 834, 839.—Tennent, 1906, 641, 643 (in *Unio*, *Anodonta*).—Ziegler, 1883, 541.
- capriciosa* Cuénot, 1892, in 1–23 (in *Synapta inhærens*) teste Braun, 1893a, 921 (syn.? *Cerc. megacotyle* Vill.); 1893b, 183.
- capsularia* Sons., 1892, 7, Oct., 144–146, pl. 18, figs. 6–7 (in *Cleopatra bulimoides*; Cairo, Egypt).—Braun, 1893b, 183.—Looss, 1896b, 223, 226, 227, pl. 16, figs. 183–190 (in *Cl. bul.* Jick.; near Alexandria).
- caryophyllata* Bory St. Vincent, 1823a, 354 (in *Infusions de chènevis*).
- catellina* Mueller, 1786, 130–131, pl. 20, figs. 12–13 (in *Aqua fossarum*, ubi Lemna).—Bosc, 1802a, 226–227.—Bruguère, 1792a, 456, 462–463.—Nitzsch, 1827, 68 to *Dicranophorus*.

CERCARIA—Continued.

- catellus* Mueller, 1773, 65–66 (“in aqua anno ferre in vasculo cum Hydrachnis servata ac in aqua flores per septimanam nutriente”); 1776, 206; 1786, 129–130, pl. 20, figs. 10–11.—Bosc, 1802a, v. 3, 226.—Bruguière, 1792a, 456, 462.—Gmelin, 1790a, 3892.—Herbst, 1789a, 129.—Nitzsch, 1827, 68 to *Dicranophorus*.
- cellulosa* sp. inq. Looss, 1896b, 227–229, 232, pl. 14, figs. 159–161 (in *Melania tuberculata* Bourg.; near Alexandria, Egypt).
- cercopitheci* Cobbold, 1861e, 119 (in *Cercopithecus fuliginosus*).
- cervi* Cobbold, 1861e, 119 (in *Cervus axis*).
- chlorotica* Dies., 1850a, 296 (Cerc. II. Baer, 1827b, renamed) (in *Paludina vivipara*: *Regiomontii*); 1855a, 386 to (Eucercaria); 1858d, 252–253 to (*Anthoncephala*) (syn. C. (Eucerc.) *chlor.* Dies.) (in *Pal. vivip.*).—Baer, 1827b, 622, pl. 31.—R. Bl., 1888a, 554.—Erc., 1881e, 7–8, 9, 11, 12, pl. 1, figs. 1–2 (in *Pal. vivip.*, *P. achatina*); 1882a, 243–244, 245, 247, 248.—Fil., 1854a, 7.—Mont., 1888, 75.—Moul., 1856a, 80, pl. 5, fig. 7, 103 (syn. of *C. microcotyla* Fil.), 157, pl. 5, bis fig. 12 (syn. Cerc. II of Baer; in *Pal. vivip.*).—Par., 1894, 163.
- clausi* Mont., 1888, 79 (for *clausii*).
- clausii* Mont., 1888, 77, 79 (*clausi*); 1891, 110.—Braun, 1893a, 837, 854.—Giard, 1897c, 954, 955 (*clausi*).—Pintner, 1891, 285–294, 1 pl.; 1892, 619.
- columbellæ* Pag., 1862, 306, pl. 29, figs. 1–3 (in *Columbella rustica*).—Braun, 1889a, 362 (in *Col. rust.*); 1893a, 831.—Par., 1894, 163 (in *Col. rust.*; *Spezia*).
- cometa* Bory St. Vincent, 1823a, 354 (in *Infusio d'orge*).
- coni mediterranei* Fil., 1857c, 14.—Mont., 1893, 2.—Par., 1894, 163 (in *Conus mediterraneus*: *Mediterranean*).
- conum* Erc., see Par., 1894, 164 (in *Bythinia tentaculata*; *Bologna*).
- cornuta* Bosc, 1802a, v. 3, 224, pl. 32, fig. 2.
- coronata* Fil., 1855b, 10–13, 15, 23, pl. 1, figs. 11–13 (in *Lymnæus palustris*, *L. stagnalis*; *Moncalieri*); 1857b, 426–429, pl. 1, figs. 11–13; 1857c, 4.—Biehringer, 1884, 5, 22.—Dies., 1858d, 249, 250, to (*Gymnocephala*) (in *Lymn. pal.*, *L. stag.*).—Moul., 1856a, 100, 111–114 (*redia*), 117, 118, 202–203 (in *Lymn. stag.*; *Moncalieri*; *L. pal.*).—Par., 1894, 162.
- cotylura* Pag., 1862, 293–305, pls. 28–29, figs. 9–10 (in genital glands of *Trochus cinereus*; *Cette*).—Biehringer, 1884, 15.—Braun, 1892a, 809; 1893a, 831, 839.—Levin., 1881a, 81.—Ziegler, 1883, 540.
- crassa* Erc., 1881 or 1882, see Par., 1894, 164 (in *Bythinia tentaculata*; *Bologna*).—Looss, 1894a, 32.
- crassicauda* Erc., 1881 or 1882, see Par., 1894, 164 (in *Bythinia tentaculata*; *Bologna*).
- cristata* LaValette, 1855, 23, pl. 2, fig. K (in *Limnæus stagnalis*).—Braun, 1893a, 821, 832, 834, 839; 1893b, 183 (in *Cleopatra bulimoides*; *Cairo, Egypt*).—Dies., 1858d, 243 (syn. of *Lophocercaria fissicauda* Dies.).—Erc., 1881e, 37–41, 42, 43, 44, 87, pl. 1, figs. 23–26 (in *Limn. stag.*); 1882a, 273–277, 278, 279, 280, 323.—Fil., 1856b, 86; 1857c, 7–8, pl. 1, fig. 11 (in *Valvata piscinalis*, *Paludina impura*, *Planorbis submarginatus*, *Lymn. stag.*, *L. palustris*).—Looss, 1896b, 210.—Moul., 1856a, 110, 118, 141, 173 (in *Lymn. stag.*; *Berlin*).—Par., 1894, 162.—Ziegler, 1883, 564.
- crumena* Mueller, 1786, 129, pl. 20, figs. 4–6 (in *infusio Ulvæ linzæ marino*).—Bosc, 1802a, v. 3, 226.—Bruguière, 1792a, 456, 462.—Nitzsch, 1827, 68–69 (type of *Crumena*).
- cucumrina* Erc., 1881, see Par., 1894, 164 (in *Bythinia tentaculata*; *Bologna*).—Braun, 1893a, 831.
- cycladis rivicola* Dies., 1850a, 298 (based on Sieb., 1837, 388) (in *Cyclas rivicola*, *liver*); 1855a, 400 to *Cercariæum*.—Moul., 1856a, 85, 168 (in *Cyc. rivic.*).—Uliéný, 1878, 212.
- cyclidium* Mueller, 1773, 68–69 (in “aquis purioribus frequens”); 1776, 206; 1786, 137–138, pl. 20, fig. 2.—Bosc, 1802a, v. 3, 228.—Bruguière, 1792a, 457, 465.—Gmelin, 1790a, 3891.—Herbst, 1789a, 130.—Nitzsch, 1827, 69 (type of *Cyclidium*).—Schrank, 1803, 84.

CERCARIA—Continued.

- cymbulix* Græffe, 1860a, 47–49, pl. 10, figs. 4–9 (in *Cymbulia peronii* Les.; Nizza).—Braun, 1892a, 672; 1893a, 833.—Mont., 1888, 75, 77, 81; 1893, 209.—Pag., 1862, 298.—Par., 1894, 165.
- cystophora* Will.-Suhm, 1870, 5 (for *cystophora*).
- cystophora* Wagener, 1866, 145, 146 (in *Planorbis marginatus*).—Biehinger, 1884, 15, 22.—R. Bl., 1888a, 603, 605.—Braun, 1883a, 54, 64; 1889a, 365 (t. h. Plan. marg.); 1891c, 218; 1891f, 369; 1892a, 775, 804; 1892b, 188; 1893a, 817, 832, 833, 834, 854, 857; 1893b, 183; 1898a, 1581.—Cobbold, 1876, 211; 1879b, 324.—Creutzberg, 1890a, 6, 7, 8, 27, 29.—Dolley, 1894a, 984 (of Will.-Suhm, larva of *Dist. ovocaudatum*); 1901, 984.—Gamb., 1896, 72.—Hahn & Lefevre, 1884a, 538.—Kholodk., 1898, 28.—Leuck., 1876a, 873.—Looss, 1894a, 111; 1896b, 226, 227, pl. 16.—Rossbach, 1906, 369.—Sons., 1897, 253.—Sinitzin, 1906, 686 (larva of *Halipegus ovocaudatus*).—Stoss., 1892, 23.—Will.-Suhm, 1870, 4, 5.—Ziegler, 1883, 540.—Zuern, 1882, 209.
- dichotoma* Mueller, in La Valette, 1855, 38 [see Mueller, 1850, 485–500].—Dies., 1858d, 265 (free; Nice), to (*Schizocerca*).—Mont., 1888, 77; 1896, 164.—Moul., 1856a, 213–214.—Pag., 1862, 298.—Villot, 1875, 477, 479; 1878, 37.
- diesingii* (Fil., 1837) Moul., 1856a, 95–96, pl. 5, bis fig. 5 (syns. *Diplodiscus diesingii*; *Redia gracilis*) (in *Planorbis nitidus*, *P. vortex*).—Dies., 1858d, 272 (syn. *Diplocotyle mutabilis*).
- diplocotylea* Pag., 1857, 25–27, 49, 52, pl. 3, figs. 9–12 (in *Planorbis marginatus*; includes *Redia gracilis* Filippi); 1862, 301.—Braun, 1893a, 839.—Cobbold, 1879b, 452, 454.—Dies., 1858d, 241, 242, 273 (syn. of *Diplocotyle mutabilis*).—Fil., 1857c, 32.—Kitt, 1885a, 148 (larva of *Amphist. subclavatum*).—Looss, 1902m, 444 (syn. of *Amphist. subcl.*).—Villot, 1878, 36 (syn. *Diplodiscus diesingii* Filippi).
- discus* Mueller, 1786, 138, pl. 20, fig. 3 (in *aqua palustri raro*).—Bosc, 1802a, v. 3, 228.—Bruguière, 1792, 457, 465–466.—Nitzsch, 1827, 69 (to *Cyclidium*).
- distomata* Linst., 1889a, 118, based on Sons., 1884, 98–102 (in *Cleopatra bulimoides*).—Braun, 1893b, 183 (in *Cl. bul.*).—Looss, 1896b, 197–204, pl. 14, figs. 152–158 (in *Cl. bul.*; Egypt).—Sons., [1884, 61 (*Cercaire distomateuse*)], 1892, Oct. 7, 144 (in *Cl. bul.*; Cairo, Egypt).
- distomi folii* Looss, 1894a, 251 (syn. *Dist. duplicatum*).
- [istomi] hepatici* Looss, 1894a, 252.
- distomi homolostomi* Linst., 1889a, 120, based on Linst., 1887d, 104–105, pl. 2, figs. 5–6, 17a (in *Limnæa stagnalis*).
- distomi militaris* Braun, 1893a, 832, based on Ben., 1858a.
- distomi perlati* Looss, 1894a, 32.
- distomi retusi* Linst., 1878a, 327, based on Ben., 1858a, 98, pl. 11, figs. 7–27 (in *Limnæa stagnalis*).
- duplicata* (Baer, 1826) Moul., 1856, 77–78, 100, 116, 119, 143–146, 173, 177, pl. 5, fig. 1, pl. 5, bis fig. 9 (to *Dist.*) (in *Anodonta ventricosa*, *A. anatina*, *A. cygnea*).—Braun, 1893a, 832.—Dies., 1858d, 271 (syn. of *Rhopalocerca tardigrada* Dies.).—Looss, 1894a, 23, 256, 264.
- ecaudata* Eichwald, 1829a, 248, pl. 1, figs. 16a–c (in *Lymnæus stagnalis*).
- echinata* Sieb., 1837, 187 (in *Lymnæus stagnalis*; Gedani); 1845, 228; 1850, 671.—Baillet, 1866b, 93 (of Duj.).—Ben., 1858a, 186a, 86, 180 (syn. of *Dist. militare*), 89 (to *Dist.*), 204, 215, 221.—Biehinger, 1884, 5, 7.—Braun, 1883a, 53, fig. 13; 1892a, 770, 772, 797; 1893a, 863; 1906, 144, 79.—Chatin, 1894b, 1356–1358 (excretory canals); 1895a, 20.—Dav., 1877, lxxi, fig. 33.—Dies., 1850a, 297 (syn. of *C. fallax*); 1855a, 377, 378 (tail), 380, 388, 390 to (*Hormocercaria*), 391; 1858d, 246, 248, 260–262 to (*Nephrocephala*) (syn. *C. (Hormocerc.) ech.* Siebold) (in *Paludina vivipara*, *Planorbis corneus*, *Lymn. stag.*) (larva of *Dist. ech.*), 261 to (*Hormocercaria*); 1858e, 344 (*C. Nephrocephala*) *ech.* syn. of *Dist. ech.*)—Erc. 1881e, [14], 15, 22, 25–33, pl. 1, figs. 50–58, pl. 2, figs. 1, 2–5, 46, 47, 48, 52, 57, 70, 73, 88, 90; 1882a, [250], 251, 258, 261–269, 282, 283, 284, 288, 293, 307, 309, 324, 326.—Fil., 1854a, 6, 9, 14, 16, 17, 18, 21, 22, 24; 1855b, 10, 11, 19, 20, 21, 22, 25; 1856a, 267; 1857c, 4, 21.—Hahn & Lefevre, 1884a, 516.—Henle, —, 6.—Keber, 1851a, 90.—Leuck., 1863, 494, 498, 516, 518, 519, figs. 169, 174.—Linst., 1873, 1 (larva of *Dist. ech.* *Zed.*); 1873, 106

CERCARIA—Continued.

- (larva of *Dist. ech. Zed.*) (in *Plan. corn.*, *Pal. vivip.*, *Lymn. stag.*).—Looss, 1894a, 252; 1902m, 455.—Mont., 1893, 205.—Moul., 1856a, 67, 68, 77, 90–93, pl. 5, figs. 15–17, 95, 96, 97, 105, 106, 109, 110, 111, 112, 116, 118, 135, 138, 184–190 (syns. *C. VII. Baer. C. fallax* Dies.), pl. 6, fig. 7, 191, 192, 193, 203 (in *Lymn. stag.*, *Pal. vivip.*, *P. impura*; Berlin).—Mueller, 1843, v. 6, 57–60 (= *C. fallax*).—Nord., 1840, 631.—Par. 1894, 162.—Rossbach, 1906, 363.—Sons. 1897, 252.—Spengel, 1905, 258.—Steenstrup, 1842, 28–40, 41, 49, 51–78, pl. 2.—Tennent, 1906, 661.—La Valette, 1855, 16, pl. 1, figs. C–M.—Wagener, 1857, 39, pl. 36A, fig. 12.—Waldenberg, 1860, 21.
- echinatoides* Fil., 1854a, 14–24, 25, 26, 28, pl. 2, figs. 19–25; 1854b, 266–278, pl. 2, figs. 19–25 (in *Paludina vivipara*, *P. achatina*; Lake Varese; Lombardy); 1855b, 11, 12, 13, 16, 18, 19, 23, 25 (syn. *C. echinifera* La Valette); 1857c, 4, 16, 21.—Baillet, 1866b, 93, 94, 96, 98.—Braun, 1892a, 797.—Dies., 1855a, 377, 380, 382, 387, 391–392 (to *(Hormocercaria)*); 1858d, 261, 262–263 (to *(Nephrocephala)* (syns. *C. (Hormocerc.) echinatoides* Fil.; *Cerc. echinifera* La Valette; *Dist. echiniferum* Pag.) (adult of *Dist. echiniferum* La Valette) (in *Pal. vivip.*, *P. achatina*); 1858e, 346 (*C. (Nephrocephala) echinatoides* as syn. of *Dist. echiniferum*).—Erc., 1881e, 25, 26, 28, 29, 31; 1882a, 261, 262, 264, 265, 267.—Harz, 1881c, 3.—Linst., 1873, 106 (larva of *Dist. trigonocephalum* Rud.) (in *Pal. vivip.*, *P. achatina*).—Moul., 1856a, [72], 74, 93–94, pl. 5, bis fig. 1, 97, 105–106, 116, 149, 190, 191–201, pl. 6, fig. 6, 202, 203, 226, 227, 228, 229, 234 (syn. *C. echinifera* La Val.) (in *Pal. vivip.*; Berlin).
- echinifera* La Valette, 1855, 14–16, pl. 1, figs. A–F (in *Paludina vivipara*).—R. Bl., 1888a, 605.—Braun, 1892a, 772.—Dies., 1858d, 261, 262 (syn. of *C. (Nephrocephala) echinatoides* Fil.).—Dollev, 1894a, 984 (= *echinatoides*).—Erc., 1881e, 25 (= *echinatoides*), 26, 28, 29, 31; 1882a, 261, 262, 264, 265, 267.—Fil., 1855b, 25 (syn. of *C. echinatoides* Fil.); 1857c, 21.—Hahn & Lefèvre, 1884a, 516.—Linst., 1873, 106 (larva of *Dist. militare* Rud.) (in *Pal. vivip.*).—Moul., 1856a, 105, 109, 110, 191, 192, 203 (syn. of *C. echinatoides* Fil.).—Pag., 1857, 53.—Will.-Suhm, 1870, 4.
- echinocerca* Fil., 1855b, 17–19, 22, 23, 25, pl. 2, figs. 19–20 (in *Buccinum linnæi*; Gulf of Gênes); 1857, 433–435, pl. 2, figs. 19–20.—Dies., 1858d, 268 (*Histrionella echinocerca* Dies.).—Mont., 1888, 10, 77; 1888, 195, 198; 1888, 194; 1893, 2, 124.—Moul., 1856a, 114–115, 116, 211–212 (in *Bucc. linn.*; Gulf of Gênes).—Villot, 1875, 479 (in *Bucc. linn.*).
- efemera* Ssinitzin, 1905, 158 for ephemera.
- elegans* Mueller, in La Valette, 1855, 13, 38, pl. 2, fig. 2, based on Mueller 1850, 496, free form.—Braun, 1893a, 831, 832.—Dies., 1858d, 269 (to *Histrionella*).—Mont., 1888, 194, to (*Hist.*).—Moul., 1856a, 214.—Pag., 1862, 298.—Villot, 1875, 479; 1878, 35.
- ephemera* Nitzsch (1807), 33–36; 1817, 29, pl. 1, figs. 1–13 (in *Planorbis corneus*; Halle); 1827, 67–68 (*Pl. corn.*).—Baillet, 1866b, 95, 96, 98.—Biehringer, 1884, 5.—Braun, 1892a, 770, 772; 1893a, 848, 849, 851, 858.—Brett, 1881b, 141.—Dies., 1850a, 299 (to *Histrionella*); 1855a, 392 (to *Hist.*); 1858d, 244 (of Sieb., syn. of *Glenocerc. flava*), 267 (of Wagener to *Hist.*).—Duj., 1845a, 478.—Eichwald, 1829a, 247, 248.—Erc., 1881e, 23; 1882a, 259 (of Nitzsch as doubtful syn. of *Cerc. tripunctata* Erc.).—Fil., 1855b, 20, 22, 25 (syn. *C. flava* La Valette); 1857c, 31.—Florance, 1866a, 12.—Hemp. & Ehrenb., 1828a (to *Hist.*).—Leuck., 1863, 494, 515, 522, 523.—Looss, 1896b, 194, 197.—Moul., 1856a, 77, 94–95, pl. 5, bis fig. 3, 116, 204–208, pl. 6, figs. 4, 5 (syns. *Hist. ephemera* Hemp. & Ehrenb.; *C. flava* La Val.) (in *Plan. corn.* by Sieb. and Val.; *Paludina impura* by Baer; *P. vivipara* by Nitzsch and Baer).—Nord., 1840, 631 (eyes; cf. *Hist. Ehrenb.*).—Pag., 1857, 24–25, pl. 2, figs. 7–12 (in *Plan. corn.*).—Sieb., 1835, 70; 1837, 187, 189; 1850, 670; 1854, 14, 18, 19, 25, figs. 1, 4–9, 13, 14.—Sons., 1897, 252.—Ssinitzin, 1905, 158 (*efemera*).—Steenstrup, 1842, 37, 51–55, 56, 65, 94.—Wagener, 1857, 21.
- ericetorum* Linst., 1898, 761–762, fig. 8 (in *Xerophilus ericetorum*; near Göttingen, Germany).
- exfoliata* Moul., 1856a, 87, 116, 180–183, pl. 6, figs. 13, 14 [new name for *Dist. of Leucochloridium paradoxum*].—Cobbold, 1879b, 435.—Dies., 1858d, 277 (syn. of *Leuc. par. Carus*).—Erc., 1881e, 55 (*Cerc. of Leuc. par.*); 1882a, 291.—Zeller, 1874.
- exigua* Looss, 1896b, 230–232, pl. 16, figs. 181–182 (in *Cleopatra bulimoides*; Egypt).

CERCARIA—Continued.

fallax Dies., 1850a, 297 (includes "Cerc. echinatum Siebold?" Dist. pacifica; Cerc. VII. Baer) (in *Paludina vivipara*, *Limnæus stagnalis*); 1855a, 380, 387 to (Eucerc.) 388, 391 (Dies., 1850a, partim as syn. of C. (Hormocerc.) echinata); 1858d, 247–248, 262, to (Gymnocephala) (syn. C. (Eucerc.) fallax Dies.) (in *Lym. stag.*; *Pal. vivip.*).—Baer, 1827, 629, pl. 31, figs. 7a, 7b.—Ben., 1858a, 1861a, 86 (syn. of Dist. militare).—Bojanus, 1818, 729, pl. 9, figs. A–F.—Fil., 1857c, 32.—Henle, —, 6.—Moul., 1856a, 184 (syn. of C. echinata Sieb.).—Mueller, 1843.—Pag., 1857, 3, 4, 6, 21, 23–24, pl. 3, fig. 1 (in *Lim. stag.*).—Schwammerdam, —, 75.—Sieb., 1845, 228; —, 187.—Steenstrup, —, 51, 78, pl. 2.

fascicularis Villot, 1875, 480, pl. 14, fig. 4 (in *Nassa reticulata*; Roscoff).

fissicanda Moul., 1856a, 109 (for *fissicauda*).

fissicauda La Valette, 1855, 21, pl. 2, figs. 6, H (in *Limnæus stagnalis*).—Braun, 1893a, 821; 1893b, 183 (in *Physa alexandrina*).—Dies., 1858d, 265 to (Schizocerca) (in *Lym. stag.*; Berlin).—Fil., 1857c, 23.—Mont., 1888, 196, 197 (*fissicaudata*); 1888, 9, 76, 77 (*fissicaudata*).—Moul., 1856a, 109 (*fissicanda*), 118, 171 (in *Lym. stag.*; Berlin).—Sons., 1897, 253.—Villot, 1878, 32, 36–37, pl. 10, figs. 9–11 (in *Scrobicularia tenuis*).

fissicaudata Mont., 1888, 196; 1888, 9, 76, 77 (for *fissicauda*).

flava La Valette, 1855, 24–25, pl. 2, figs. 8, a, g. (= C. ephemera Nitzsch, renamed.)—Dies., 1858d, 244 (to *Glenocerc.*)—Fil., 1855b, 25 (syn. of C. ephemera).—Moul., 1856a, 204 (syn. of C. ephemera).

flavopunctata Par., 1894, 703 (for C. fulvopunctata).

folii Looss, 1894a, 256 (syn. Dist. duplicatum).

forcipata Mueller 1786, 134–135, pl. 20, figs. 21–23 (in aqua palustri rarissime).—Bosc, 1802a, v. 3, 227.—Bruguière, 1792, 457, 464.—Nitzsch, 1827, 68 to *Dicranophorus*.

fulgopunctata Braun, 1893a, 831 (for *fulvopunctata*).

fulvopunctata Erc., 1881 or 1882, see Par., 1894, 161 (in *Bythinia tentaculata*; Bologna).—Spengel, 1905, 258.

furcata Nitzsch, [1817], 49, pl. 2, figs. 12–18; 1827, 68 (syn. *Vibrio malleus* Mueller).—Baer, 1827, 626–629.—Braun, 1893a, 821, 846.—Dies., 1850a, 295 (to *Malleolus*, only species, ?type by tautonymy malleus).—Fil., 1855b, 21, 22, 23; 1857c, 19, 23, pl. 2, fig. 31.—Moul., 1856a, 77, 84–85, pl. 5, fig. 13, 115, 116, 118, 120, 168, 169, 170, 171 (= Cerc. VI. of Baer) (in *Limnæus stagnalis*; *Paludina vivipara* by Baer).—Nitzsch, 1827, 68 (syn. *Vibrio malleus*).—Nord., 1840, 631.—Pag., 1857, 4.—La Valette, 1855, 22, pl. 2, fig. J.

[*furcata* Eichwald, 1829a, 247.]

gibba Mueller, 1773, 120; 1786, 120–121, pl. 18, fig. 2 (in infusione jungermanniæ tamarisci).—Bory St. Vincent, 1823a, 355 (in infusions de Jungermannes).—Bruguière, 1792, 456, 458.—Nitzsch, 1827, 68, to *Macrocerus*.—Schränk, 1803, 85.

gibba Fil., 1854a, 13, 26, pl. 1, fig. 18 (in *Limnæus pereger*); 1854, 266, pl. 10, fig. 15; 1855b, 23.—Bosc, 1802a, v. 3, 225.—Dies., 1855a, 389 to (*Xiphidiocerc.*); 1858d, 257, to (*Acanthocephala*) (syn. C. (*Xiphidiocerc.*) g. Fil.) (in *Lym. per.*; Turin).—Erc., 1881e, 17–18, pl. 1, figs. 29–31; 1882a, 253–254.—Moul., 1856, 82, 159–160, pl. 5, bis fig. 15 (in *Lym. per.*).—Par., 1894, 162.—Ssinitzin, 1906, 686 (in *Limnæa stagnalis*, L. palustris; Warschau), larva of *Opisthoglyphe endoloba*.

globipora Erc., 1881 or 1882, see Par., 1894, 164 (in *Bythinia tentaculata*; Bologna).—Looss, 1894a, 47, 48.

gorgoderæ cygnoides Kowal., 1904, 24 (9) (in *Cyclas cornea*; Dublany).

gorgoderæ loossi Ssinitzin, 1905, 44–46, pl. 1, figs. 3, 14 (syn. Cerc. macrocerca Wagener); 1906, 683 (in *Epithecea*; Warschau).

gorgoderæ pagenstecheri Ssinitzin, 1905, 46–47, pl. 1, figs. 4, 7, 13, pl. 2, figs. 15, 19, 20 (syn. C. macrocerca Thiry); 1906, 683.

gorgoderæ varsoviensis Ssinitzin, 1905, 47–49, pl. 1, fig. 5, pl. 2, figs. 16, 18; 1906, 683.

gorgoderæ vitelliloba Ssinitzin, 1905, 49–51 (syn. Cerc. macrocerca Fil., 26, pl. 10, fig. 7); 1906, 683.

CERCARIA—Continued.

- gracilis* La Valette, 1855, 20–21, pl. 1, fig. 13 (in *Planorbis corneus*).—Ben., 1858a, 1861a, 220.—R. Bl., 1888a, 555.—Dies., 1858d, 264–265 (in *Plan. corn.*; Berlin) to (Schizocerca), 270.—Fil., 1857c, 23.—Moul., 1856a, 108–109, 116, 170–171 (in *Plan. corn.*; Berlin).—Wagener, 1866, 146.
- pyrinus* Mueller, 1773, 64–65 (in *infusioni animali raro*); 1776, 206; 1786, 119–120 (syn. *Macrocerus corpore globoso*), pl. 18, fig. 1.—Bory St. Vincent, 1823a, 354–355 (in *infusions animales*).—Bosc, 1802a, v. 3, 224–225.—Bruguière, 1792, 456, 458.—Gmelin, 1790a, 3892–3893.—Herbst, 1789a, 129, pl. 80.—Nitzsch, 1827, 68 to *Macrocerus*.
- haimeana* (Lacaze-Duthiers, 1854) Moul., 1856, [87] 178–179, pl. 6, fig. 12 (in *Ostrea edulis*, *Cardium rusticum*: Mahon, Cette).—Badcock, 1875a, 145.—Claparède, 1863, 10–12, pl. 4, figs. 8–9 (syn. *Bucephalus haimeanus* Lacaze-Duthiers).—Dies., 1858d, 276 (to *Bucephalopsis*).—Giard, 1874e, 486.—McCrady, 1874, 180.
- haimeana* Erc., 1881e, 41 (*Bucephalus haimeanus*, renamed); 1882a, 277.
- helicis aspersæ* (Dies., 1855) Moul., 1856c, 83–84, 166–167 (based on Duj., 1845a, 472 (in *Helix aspersa*)).—Dies., 1858d, 277 (to *Cercariaeum*).—Par., 1894, 164.
- helicis carthusianellæ* [Erc., 1881e, 95, pl. 1, figs. 45–47; 1882a, 331 (*Cerc. dell' Helix carthusianella*)].—Par., 1894, 164 (Bologna).
- helicis maculosæ* [Erc., 1881e, 95, pl. 1, figs. 48, 49; 1882a, 331].—Par., 1894, 164 (Bologna).
- helicis viviparæ* Dies., 1850a, 298 (for Dist. Bojanus, 1818, 730; Vilnæ); 1855a, 399.
- hirta* Mueller, 1786, 128, pl. 19, figs. 17, 18 (in *aqua marina bis tantum*).—Bosc, 1802a, 226.—Bruguière, 1792, 456, 461.—Nitzsch, 1827, 69 (type of *Coleps*).
- histrionella* Ehrenb.—Wagener, 1834, 131–132.
- hyalocauda* Haldemann (1840a).—Evarts, 1880a, 230–232, figs. 34–36 (in *Physa heterostropha* Say).
- hymenocerca* Villot, 1875, 479–480, pl. 14, figs. 5–7 (in *Calyptrea sinensis*; Roscoff).
- imbricata* Looss, 1893a, 20 (in *Bythinia tentaculata* Gray=*Paludina vivipara* Lam.: near Leipzig; 1896b, 192–197 (sub *Monost. verrucosum*; in *Melania tuberculata* Bourg.); 1902m, 444 (sub *Notocotyle verrucosa*).—Sons., 1897, 252.
- incistidata* Perroncito [1879, 7–9.], 1880, 454–457, 1 fig. (in *Rana esculenta*).—Erc., 1881e, 13, 14, 15, 30, 32, 57, 63; 1882a, 249, 250, 251, 266, 268, 293, 299.
- inermes* Looss, 1892a, 128, not as specific name, but meaning unarmed cercariae.
- inquieta* Mueller, 1786, 121–122, pl. 18, figs. 3–7 (in *aqua marina*).—Baer, 1826a, 125.—Ben., 1858a, 1861a, 312.—Bory St. Vincent, 1825b, 253.—Bosc, 1802a, v. 3, 225.—Bruguière, 1792, 456, 458–459.—Dies., 1850a, 300 (to *Histrionella*).—Mueller, J., 1850, 496.—Moul., 1856a, 213 (of Nitzsch, 1817).—Nitzsch, 1817, 47; 1827, 67, 68.—Villot, 1875, 479.
- isopori* Looss, 1894, 55 (in *Cyclas rivicola*).
- lacrhyma* Bory St. Vincent, 1823a, 354 (in *infusions d'orge et d'avoine*).
- lata* Lespès, 1857, 114–116, pl. 1, fig. 13 (in *Venus decussata*; Arcachon).—Braun, 1893a, 832.—Dies., 1858d, 251, to (*Gymnocephala*) (in *V. dec.*).—Florance, 1866a, 7.—Pag., 1862, 297, 298, 299 (in *V. dec.*).—Villot, 1875, 479 (in *V. dec.*).
- lemna* Mueller, 1773, 67–68 (in *aquis paludosis*); 1776, 206; 1786, 122–123, pl. 18, figs. 8–12; —, 2485.—Abildg., 1793, 89.—Baer, 1826a, 125.—Bory St. Vincent, 1825b, 253.—Bosc, 1802a, v. 3, 225.—Bruguière, 1792a, 456, 459.—Dies., 1850a, 299 (to *Histrionella*).—Gmelin, 1790a, 3892.—Herbst, 1789a, 130.—Hermann, —, 160, pl. 3, figs. 43a–d.—Moul., 1856a, 213.—Nitzsch, 1827, 67, 68.—Schränk, 1803, 79–80.—Wagner, 1832, 394, pl. 4, figs. 1–6.
- leptosoma* Villot, 1878, 32–33, pl. 9, figs. 4–5 (=Cerc. stage of Dist. *leptosomum* Crep.) (in *Scrobicularia tenuis*).—Nicoll, 1906, 517, 518 [larva of *Echinost. leptosomum*] (in *Scrob. ten.*).
- leucochloridi* Leuck., 1858a, 114, see *Leucochloridium paradoxum*.
- limacis* (Dies., 1850) Moul., 1856, 83, pl. 5, fig. 11, pl. 8, fig. 12, pl. 9, figs. 8–9; 103, 163–164 pl. 8, figs. 19, 20, pl. 19, figs. 11–12; 165 (in *Limax cinerea*; Genève).—R. Bl., 1888a, 554.—Braun, 1893a, 831.—Dies., 1858d, 259 (syn. of *C. (Acanthocephala) trigonocerca* Dies.).—Erc., 1881e, 59; 1882a, 295.

CERCARIA—Continued.

- limnæ ovata* Linst., 1884, 142; 1887d, 98, 99, 100 (in *Limnophilus rhombicus*), 105.—Stoss., 1889, 66 (syn. of *Dist. endolobum*).
- limnæ truncatula* Linst., 1892, 331–332, pl. 15, fig. 17 (in *Limnæa truncatula*).
- linearis* Lespès, 1857, 117, pl. 1, fig. 16 (in *Littorina littorea*).—Braun, 1893a, 381.—Dies., 1858d, 258 (in *Littorina littorea*) to (*Acanthocephala*).—Pag., 1862, 297 (in *Litt. litt.*).—Villot, 1875, 479.
- longicaudata* Piana, 1882, see Par., 1894, 161 (in *Helix nemoralis*, *H. carthusiana*; Reggio Em.) (see also *longocaudata*).—Dolley, 1894a.
- longocaudata* Piana, 1882, teste Par., 1894, 622 (misprint?) (in *Helix carthusiana*), as larva of *Dist. lanceolatum*.
- lophocerca* Fil., 1857c, 5, pl. 1, figs. 3–4 (in *Paludina impura*).—Braun, 1893a, 832.—Dies., 1858d, 245 (to *Glenocerc.*).—Erc., 1881e, 24, 25, 35; 1882a, 260, 261, 271.—Looss, 1894a, 252.—Par., 1894, 163 (in *Bythinia tentaculata*, *Pal. vivipara*, *P. achatina*; Torino by Fil., 1858).
- luna* Mueller, 1786, 139, pl. 20, figs. 8, 9 (in eadem aqua, ac proxime precedens, rarissime [*C. orbis*]; [*Zool. Dan. prodr. addend.*, 1776, 280].—Bosc, 1802a, v. 3, 228.—Bruguère, 1792a, 457, 466.—Nitzsch, 1827, 69 to *Lecane*.
- lungo-caudata* Piana, see R. Bl., 1888a, 603 (in *Helix carthusiana*), see also *longicaudata*.
- lupus* Mueller, 1773, 67 (in aquosis, ubi *Lemna* vegetat, rara); 1776, 206; 1786, 131–133, pl. 20, figs. 14–17.—Bosc, 1802a, v. 3, 227.—Bruguère, 1792a, 456, 463.—Gmelin, 1790a, 3892.—Hemp. & Ehrenb., 1828a (type of *Cycloglena*).—Herbst, 1789a, 130.—Nitzsch, 1827, 68, to *Dicranophorus*.—Schränk, 1803, 83–84.
- lutea* (Ben., 1870) Giard, 1897c, 954–956 (to *Brachycoelium luteum* Ben.) (in *Tapes decussatus*, *T. pullastra* at Arcachon; *Donax trunculus*; Wimereux); 1897d, 957; 1903h, 27–28.—Caullery & Chappellier, 1906, 325.—Pelseneer, 1895, 357.—Also reported for *Pholas candida*.
- lymnæi auricularis* (Fil., 1854) Moul., 1856, 84, pl. 5, fig. 12; 167 (in *Lymnæus auricularis* by Fil.).—Dies., 1858d, 279 (to *Cercariæum*).—Looss, 1894a, 32, to (*Dist.*).
- lymnæi obscuri* Erc., 1881e, 33–35, pl. 1, figs. 16–17, 46; 1882a, 269–271, 282 (in *Lymnæus obscurus*, *L. stagnalis*).—Par., 1894, 162 (in *Lymn. obs.*; Bologna by Erc.).
- macaci* Cobbold, 1861, 119 (in *Macacus radiatus*).
- macorcerca* Looss, 1894a, 253 (misprint for *macrocerca*).
- macrocerca* Fil., 1854a, 13, 26, pl. 1, figs. 15–18 (in *Cyclas cornea*; Turin); 1855, 341, pl. 1, figs. 15–17; 1855b, 22, 24.—Baillet, 1866b, 93.—Biehringer, 1884, 2–3, 7, 9, 16, 17, 18, 22, 26.—Braun, 1883, 56; 1890e, 595; 1891c, 218; 1891f, 369; 1892a, 634, 808, 809, 810; 1892b, 188; 1893a, 831, 832, 854.—Claparède, 1863a, 12.—Cobbold, 1879b, 470.—Dies., 1855a, 389 (to *Xiphidiocerc.*); 1858d, 255, to (*Acanthocephala*) (syn. *C. (Xiphidiocerc.) macr. Fil.*) (larva of *Dist. cygnoides* Zed.) (in *Cyclas cornea*; Turin); 1858e, 334 to (*Acanthocephala*) (as syn. of *Dist. cyg.*).—Fraipont, 1880a, 397; 1880c, 419, 441; 1883a, 35.—Gamb., 1896, 72.—Hahn & Lefèvre, 1884a, 516.—Jackson, 1888, 651.—Juel, 1889, 15.—Kerbert, 1881a, 556.—Kowal., 1902d, 27 (9) [larva of *Gorgodera cygnoides*, in *Cyclas cornea*].—Leuck., 1863, 511, 512.—Linst., 1873, 1 (larva of *Dist. cyg. Zed.*).—Looss, 1885b, 19; 1892a, 125; 1894a, 23, 63, 129, 236, 244, 251, 253 (*macorcerca*), 256, 264, pl. 6, fig. 129; 1896b, 227; 1902m, 444 (sub *Gorgodera cygnoides*).—Mace, 1882, 61.—Mont., 1888, 41.—Moul., 1856, 82, 119, 160–161, pl. 6, figs. 1, 2; 173 (in *Cyc. corn.*; Turin).—Pag., 1862, 299.—Par., 1894, 165.—Pratt, 1898, 361.—Ssinitzin, 1905, 49 (of Fil., syn. of *vitelliloba*), 46 (of Thiry, syn. of *pagenstecheri*), 44 (of Wagener, syn. of *loossi*); 1906, 682.—Thiry (1859), v. 10 (2), 271–277, pls. 20–21, figs. 1–13; (1860), v. 10, 271–277, 2 pls.—Uličný, 1878, 212, 214.—Villot, 1882, 507.—Wagener, 1857, pl. 29.—Ziegler, 1883, 540, 547 (in *Limnæa sp.*).
- magna* Pag., 1857, 3, 4, 22–23, pl. 2, figs. 13–14 (in *Paludina vivipara*).—Dies., 1858d, 247, to (*Gymnocephala*) (in *Pal. vivip.*; Heidelberg).
- major* Nitzsch, 1817, 44, pl. 2, figs. 1–8; 1827, 68 (syn.? *Brachionus proteus*).—Dies., 1850a, 299 (syn. of *Histriionella lemna*).—Moul., 1856a, 213.—Mueller, 1850, 497.—Pag., 1857, 23.

CERCARIA—Continued.

- megacotyla* Dies., 1858d. 263, to (*Nephrocephala*) (syn. *Dist. echinatoides* Pag., nec Fil.) (in *Anodonta cygnea*; Heidelberg).
- megacotylea* Villot, 1878, 30, pl. 9, fig. 7 (in *Mysis*).—Braun, 1893b, 183 (?syn. of *C. capriciosa*).—Cuénot, 1892.
- melanoglena* Pag., 1862, 298 [*Melanoglena bipunctata* renamed].
- micracantha* Dies., 1858d. 259-260 (syn. *C. armata* Fil., 1855b, 3-5) to (*Acanthocephala*) (in *Triton punctatus*, *Lymnaeus palustris*).—Linst., 1887, 100; 1878a, 205 (in *Tr. tæniatus*).
- microcotyla* Fil., 1854a, 7-12, 13, 26, pl. 1, figs. 5-10 (in *Paludina vivipara*, *P. achatina*; Lake Varese and Lombardy); 1854b, 260-265, pl. 10, figs. 5-10; 1855b, 6, 22, 23, 25 (syn. *C. pugnax* La Valette); 1856b, 85, 86; 1857c, 7, 15, 31.—Bailler, 1866b, 93.—Biehringer, 1884, 15.—Braun, 1892a, 809; 1893b, 183 (in *Melania tuberculata*; *Cleopatra bulimoides*).—Dies., 1855a, 378, 390 to (*Xiphidiocerc.*); 1858d, 253 to (*Acanthocephala*) (syn. *C. (Xiphidiocerc.) micr.* Fil.; *C. pugnax* La Valette) (in *Pal. achat.*; Lombardia; *P. vivip.*) (larva of *Dist. tetracystis* Gast.), 254 (syn. of *C. (Acanthocephala) vesiculifera* Dies.); 1858e, 348 (sub *Acanthocephala* as syn. of *Dist. tetracystis*).—Erc., 1881e, 7, 8, 9, 10, 11-15, pl. 1, figs. 10-15 (in *Pal. vivip.*, *P. achat.*; liver and genital organs; *Limnaeus obscurus*, *Planorbis corneus*). 71; 1882a, 243, 244, 245, 246, 247-251, 307.—Linst., 1873, 1 (larva of *Dist. tetracystis* Gast.).—Moul., 1856a, 80 (*microtyla*), pl. 5, figs. 5-6, 103, 104, 153-157, pl. 5, bis fig. 11; 160, 161 (syns. *C. pugnax* La Valette, *C. chlorotica* Dies., *Cerc. II. Baer*) (in *Pal. vivip.*, *P. achatina*; Lac de Varèze and Berlin).—Sons., 1884, 58: —, 136-137; 1897, 253.
- microcristata* Erc., 1881 or 1882, see Par., 1894, 161 (in *Bythinia tentaculata*; Bologna).
- microtyla* Moul., 1856a, 80 (for *microcotyle*).
- micrura* Fil., 1857c, 5-6, pl. 1, figs. 5, 6 (in *Paludina impura*); 1859, —.—Biehringer, 1884, 3, 26.—Braun, 1893a, 831.—Dies., 1858d, 258, to (*Acanthocephala*) (in *Pal. imp.*; Turin).—Looss, 1894a, 47 (= *C. globipora*=*Dist. globiporum* Rud.) (in *Bythinia tentaculata*); 1896b, 208.—Mont., 1888, 76.—Par., 1894, 163.—Sinitzin, 1906, 685 (in *Bythinia tentaculata*), 686 (in *Nephele vulgaris* but not *Limnaea*), larva of *Sphaerost globiporum*.—Villot, 1878, 36.
- minuta* Erc., 1881 or 1882, see Par., 1894, 163 (in *Bythinia tentaculata*; Bologna).
- minuta* Nitzsch, 1817, 46, pl. 2, figs. 9-11 (in various mollusks at Halle); 1827, 68.—Dies., 1850a, 295; 1855a, 385 to *Eucerc.*; 1858d, 246 to (*Gymnocephala*) (in various fresh-water mollusks at Halle).—Moul., 1856a, 213.—Spengel, 1905, 258.
- miocerca* Mont., 1888, 77 (for *myocerca*).
- mirabilis* Braun, 1891c, 218 (in *Limnaeus palustris* var. *corvus*); 1891f, 369; 1892b, 187-188 (in *Limn. pal. corv.*; Kurischer Lowlands); 1893a, 821, 832, 834; 1893b, 183.
- mongotii* Bory St. Vincent, 1823a, 354 (in water).
- monostomi* Linst., 1896i, in 376-377 (perhaps young of *Monost. mutabile*) (in *Lymnaea ovata*, *L. peregra*; Weende, Germany); 1897a, 109.
- myocerca* Villot, 1878, 35-36, pl. 10, figs. 12-13 (in *Scrobicularia tenuis*).—Braun, 1893a, 832.—Mont., 1888, 9, 77 (*miocerca*).
- myzura* Pag., 1881, 18 (in *Neritina fluviatilis*).—Braun, 1893a, 831.
- neglecta* Fil., 1854a, 24, 26, pl. 2, figs. 26, 27 (in *Lymnaeus pereger*); 1854, 278, pl. 11, figs. 26-27; 1855b, 23.—Dies., 1855a, 386 to (*Eucerc.*), 387; 1858d, 246 to (*Gymnocephala*).—Moul., 1856, 94, pl. 5, bis, fig. 2; 116, 204, pl. 6, fig. 9 (in *Lymn. per.*).—Par., 1894, 165.
- nodulosa* Linst., 1873, 3, pl. 1, fig. 5 (in *Bythinia tentaculata*); 1873, 142, figs. 30-32; 1878a, 323 (= *Dist. nodulosum*).—Looss, 1894a, 40 (in *By. ten.* by Linst.) (= *C. virgula* Fil. and *C. rostroaculeata*) (not *Dist. nodulosum*).
- obscura* Sons., 1892, Oct. 7, 138 (in *Limnaea natalensis*; Cairo, Egypt); 1896, 321.—Braun, 1893b, 183 (in *Limn. nat.*).
- ocellata* La Valette, 1855, 22-23, pl. 2, fig. 5 (in *Limnaeus stagnalis*).—Braun, 1893a, 821, 834.—Dies., 1858d, 270 (syn. of *Histriionellina fissicauda*).—Erc., 1881e, 35-36 (in *Planorbis corneus*, liver), 49, pl. 1, figs. 43, 44, pl. 2, fig. 18; 1882a, 271-272, 285.—Moul., 1856a, 109-110, 116, 118, 172-173 (in *Lymn. stag.*; Berlin).—Par., 1894, 161.—Sons., 1897, 253.

CERCARIA—Continued.

- odontocotyla* Dies., 1858d, 264 (in *Lymnæus stagnalis*; Berlin).
- opaca* Bory St. Vincent, 1823a, 354 (in infusions de pois).
- orbis* Mueller, 1786, 138–139, pl. 20, fig. 7 (in aqua, ubi Lemna, rarissime); [Zool. dan. prod., 1776, 280].—Bosc, 1802a, v. 3, 228.—Bruguère, 1792a, 457, 466.—Nitzsch, 1827, 69 to Lecane.
- ornata* La Valette, 1855, 18–19, pl. 1, figs. N–O (in *Planorbis corneus*).—Braun, 1892a, 806; 1893a, 832.—Cobbold, 1876, 211; 1879, 454.—Desmonceaux, 1868, 22.—Dies., 1858d, 241, 244 to (*Acanthocephala*), 255–256 to (*Acanth.*) (larva of *Dist. clavigerum* Rud.) (in *Plan. corn.*, Berlin; *Hydrachna concharum*; Heidelberg); 1858e, 388 to (*Acanth.*); 1859c, 434.—Fil., 1857c, 31, 32.—Florance, 1866a, 11.—Harz, 1881c, 4.—Leuck., 1863, 495, fig. 171.—Linst., 1873, 1 (larva of *Dist. clavigerum* Rud.).—Looss, 1894a, 90, 99, 237, 250, 252, 257.—Moul., 1856, 108, 120, 152–153 (in *Plan. corn.*; Berlin).—Pag., 1857, 13–18, 52, pl. 1, figs. 1–13 (in *Plan. corn.*); 1862, 301.—Rossbach, 1906, 389.
- ovalis* Schrank, 1803, 86.
- ovata* Villot, 1878, 29–30, pl. 9, fig. 6 (in *Lygia oceanica*).
- pachycerca* Dies., 1858d, 257–258, to (*Acanthocephala*) (syn. *C. brachyura* Lespès) (in *Trochus cinereus*; Francogalliæ).
- pachycerca* Claperède, 1863a, 12–13, pl. 18, fig. 1 (free form; St. Vaast).—Braun, 1893a, 831.—Par., 1894, 165 (in *Cydippe* sp.; Nizza; see Leuck., in Carus, 1884, Prod., 133).—Villot, 1878, 35 (of Dies. or Clap.?).
- pacifica* Ben., 1858a, 1861a, 86 (syn. of *Dist. militare*).
- paludinae impuræ* Baer, 1827, 655, see Dies., 1855a, 400 (syn. of *Cercariæum erythrops*, and of *C. melanops*).—Moul., 1856, 96, pl. 5, bis fig. 4, 212–213, pl. 6, fig. 8; 216 (syn. *Dist. paludinae impuræ* Fil.) (in *Paludina impura*; Lake de Varèse).
- papillosa* Erc., 1881 or 1882, see Par., 1894, 164 (in *Bythinia tentaculata*; Bologna).
- parva* Erc., 1881 or 1882.—Par., 1894, 164 (in *Bythinia tentaculata*; Bologna).
- pectinata* Huet, 1891a, 12, Apr., 162–165, figs. 1–4 (in *Donax anatinum*).
- pelagica* Mont., 1888, 45, 46.
- pigmentata* Sons., 1892, Oct. 7, 142–144 (in *Physa alexandrina*, *P. micropleura*; Cairo, Egypt) of an *Amphist.* (sp.).—Braun, 1893b, 183 (in *Ph. micr.*).—Looss, 1902m, 444 (sub *Amphist. conicum*).—Stiles, 1898a, 64, 65, 143.
- planorbis carinati* Dies., 1858d, 266, to (*Acanthocephala*) (in *Planorbis carinatus*; Turin).
- planorbis cornei* Dies., 1850a, 298 (in *Planorbis corneus*) (based on Henle, 1835, 597); 1855a, 400 (to *Cercariæum*).—Moul., 1856a, 85 (in *Plan. corn.*) (Henle, 1835, 597).
- platyura* Leidy, 1891a, 416 (free in pool with *Lymnæus*; Fort Bridger, Wyo.).
- pleurolophocerca* Sons., 1892, Oct. 7, 138–139 (in *Melania tuberculata*, *Cleopatra bulimoides*; Cairo, Egypt).—Braun, 1893b, 183 (in *Mel. tub.*, *Cl. bul.*).—Looss, 1896b, 204–210, pl. 13, figs. 140–145 (in *Mel. tub.*; Egypt).
- pleuronectes* Mueller, 1773, 70 (“In aqua ultra sex septimanas in vasculo servata”); 1776, 206; 1786, 135, pl. 19, figs. 19–21.—Bosc, 1802a, v. 3, 227.—Bruguère, 1792a, 457, 464.—Gmelin, 1790a, 3891.—Herbst, 1789a, 130.—Nitzsch, 1827, 69 to Phacus.—Schrank, 1803, 85–86.
- podura* Mueller, 1773, 66 (“In paludosis Lemna coopertis, Novembri et Decembri”); 1776, 206; 1786, 124–125, pl. 19, figs. 1–5.—Bory, St. Vincent, 1825a, 84 (to *Furcocerca*).—Bosc, 1802a, v. 3, 225.—Bruguère, 1792a, 456, 460.—Gmelin, 1790a, 3892.—Hemprich & Ehrenberg, 1828a, type of *Ichthyidium*.—Herbst, 1789a, 130.—Nitzsch, 1827, 68 to *Enchelys*.
- polymorpha* (Baer, 1827) Moul., 1856, 86, 116, 174–177, pl. 6, fig. 11; 179.—Dies., 1858d, 275 (to *Bucephalus*).—Erc., 1881e, 41, 42, 43, 44–45, 60, 87; 1882a, 277, 278, 279, 280–281, 296, 323.—Par., 1894, 164 to (*Bucephalus*).—Ziegler, 1883, 541.
- pomatia* Vaney & Conté, 1899, 194–196, figs. 1–2 (in *Helix pomatia*; Lyon).
- prima* Ssinitzin, 1905, 147–153; 1906, 687 (in *Aplexa hypnorum*, *Planorbis vortex compressa*; Warschau) (encysts in *Corethra*, *Ilybius*; Warschau).
- proxima* Lespès, 1857, 116, pl. 1, fig. 14 (in *Littorina littorea*).—Dies., 1858d, 249–250, to (*Gymnocephala*).—Pag., 1862, 297 (in *Litt. litt.*).—Villot, 1875, 479.

CERCARIA—Continued.

- pugio* Linst., 1887, 105, pl. 2, figs. 7, 17c (in *Limnæa ovata*).
- pugnax* La Valette, 1855, 19, pl. 1, fig. R (in *Paludina vivipara*).—Dies., 1858d, 247.—Erc., 1881e, 11 (= *C. microcotyla* Fil.), 12; 1882a, 247, 248.—Fil., 1855b, 25 (syn. of *C. microcotyla* Fil.); 1857c, —.—Moul., 1856, 103, 153, 157 (syn. of *C. microcotyla*).—Pag., 1857, 20–21, 22, pl. 1, figs. 17–24 (in *Pal. vivip.*).
- punctum* Erc., 1881 or 1882, see Par., 1894, 164 (in *Bythinia tentaculata*; Bologna).
- pusilla* Looss, 1896b, 229–230, 231, 232, pl. 16, figs. 178–180 (in *Vivipara unicolor* Olivier; Damanhour).
- pyrula* Bory St. Vincent, 1823a, 355 (in infusion de chènevis).
- renale* (Fil., 1855) Moul., 1856, 164–165 (in *Helix aspera*; Turin).—Dies., 1858d, 265–266 (*renalis*) to (*Gymnocephala*) (in *H. adspersa*; Turin).
- rigonocerca* Braun, 1892a, 809 (for *trigonocerca*).
- rostrata* Erc., 1881 or 1882, see Par., 1894, 164 (in *Bythinia tentaculata*; Bologna).—Looss, 1894a, 40.
- rostroaculeata* Erc., 1881, see Par., 1894, 164 (in *Bythinia tentaculata*; Bologna).—Looss, 1894a, 40 (see *nodulosa*).
- sagitata* Lespès, 1857, 114, pl. 1, fig. 12 (in *Nassa reticulata*; Arcachon).—Dies., 1858d, 249.
- sagitta* Pag., 1862, 297 (in *Nassa reticulata*), for *sagitata*.
- sagittalis* Vaney & Conte, 1899, 196 (*C. sagittifera* Sieb., 1854, renamed) (in *Helix pomatia*).
- sagittata* Dies., 1858d, 249, to (*Gymnocephala*) for *sagitata* (in *Buccinum* (*Nassa*) *reticulatum*), 250.—Villot, 1875, 479.
- sagittifera* Sieb., 1854, 18, fig. 3 (in *Helix pomatia*).—Dies., 1855a, 398 (syn. of *Cercariæum helices pomatiæ*); 1858d, 278 (syn. of *Cercariæum h. p.*).—Moul., 1856, 82, pl. 5, fig. 10; 83, 163 (in *H. pom.*).
- secunda* Ssinitzin, 1905, 153; 1906, 687 (in *Corethra*, *Ephemera* larvæ; Warschau).
- setifera* O. F. Mueller, 1786, 127–128, pl. 19, figs. 14–16 (in *aqua marina raro*).—Bosc, 1802a, v. 3, 226.—Bruguère, 1792a, 456, 461.—Mont., 1888c, 193–199.—Nitzsch, 1827, 69 to *Trichoda*.
- setifera* Moul., 1856a, 214, and Dies., 1858d, 250–251 (Triest), to (*Gymnocephala*), based on J. Müller, 1850, 497 (free in sea water; Marseilles).—Braun, 1893a, 832, 853.—Claparède, 1863a, 12, 13.—Dadai, 1888f, 85; 1888g, 108.—Giard, 1897c, 954, 955 (*setigera*).—Mont., 1888, 9, 10, 23, 77, 78, 79, 80 (*Cercavia*); 1888, v. 2, 193–199; 1891, 519; 1892, 717; 1893, 1, 2, 13, 47, 52, 55, 61, 70, 122, 124, 125, 209.—Moul., 1856a, 214.—Pag., 1862, 298.—Par., 1894, 165 (syn. *Macrurochaeta aculepharum*).—Villot, 1875, 477, 479; 1878, 32, 33–35, pl. 10, figs. 1–8 (in *Scrobicularia tenuis*).
- setigera* Giard, 1897c, 955 (for *setifera*, 1856).
- species* Wagener, 1857, in liver of *Limnæus stagnalis*.—Braun, 1893a, 821 (is an *Echinost.*).
- spermatica* Blumenbach, see Chiaje, 1833, 34.
- spinifera* La Valette, 1855, 17, pl. 1, figs. 10–11 (in *Paludina vivipara*, *Planorbis corneus*).—Braun, 1893a, 832.—Dies., 1858d, 263–264, to (*Nephrocephala*) (in *Plan. corn.*; Berlin).—Erc., 1881e, 25, 26; 1882a, 261, 262.—Looss, 1894a, 252.—Moul., 1856, 109, 110, 202, 203 (in *Plan. corn.*; Berlin).
- stylosa* Linst., 1875, 193–195, pl. 3, figs. 16–17 (in *Planorbis vortex*); 1878a, 329 (in *Plan. vor.*).
- subulo* Pag., 1857, 19–20, pl. 1, figs. 14–16 (in *Paludina vivipara*).—Dies., 1858d, 256–257, to (*Acanthocephala*) (in *Pal. vivip.*; Heidelberg).
- syrinus* Kûech., 1855, 471, misprint for *gyrinus*.
- tellinæ balticæ* Dies., 1850a, 298 (in *Tellina baltica*; Gedani), based on Sieb., 1837, 388; 1855a, 400 (to *Cercariæum*).—Moul., 1856, 85, 168 (in *Tell. balt.*).—Villot, 1875, 479 (in *Tell. balt.*).
- tenax* Müller, 1773, 69–70 (in infusione sordium dentium intra quadriduum); 1776, 206; 1786, 136–137, pl. 20, fig. 1.—Bosc, 1802a, v. 3, 228.—Bruguère, 1792a, 457, 465.—Chiaje, 1833, 37–38.—Gmelin, 1790a, 3891.—Herbst, 1789a, 130.—Nitzsch, 1827, 69, to *Phacus*.—Olfers, 1816, 24.—Schränk, 1803, 84–85.

CERCARIA—Continued.

- terrestris* Linst., 1889c, 241, pl. 16, fig. 14 (in *Helix lens*; Greece); 1889d.
- terricola* Linst., 1889c, 241, pl. 16, fig. 13 (in *Helix vermiculata*; Algiers); 1889d.
- thaumanthiadis* Braun, 1889a, 357 (in *Eucope*); 1893a, 832, for *thaumantiatidis*.
- thaumantiatidis* Pag., 1862, 298, for *thaumantiatidis*.—Linst., 1887a, 334 (in *Eucope* sp.).
- thaumantiatidis* Græffe, 1860a, 49–51, pl. 10, figs. 10–12 (in *Thaumantias* Græffe, coelenterate, not Bonaparte, 1854, bird, compare *Thaumantias* Eschsch., 1829, *Acal.*).—Braun, 1889a, 357 (*thaumanthiadis* in *Eucope*); 1893a, 832 (*thaumanthiadis*).—Mont., 1888, 193, 194, 195; 1888, 77.
- tricaudata* Schrank, 1803, 86.
- trigonocerca* Dies., 1858d, 259, to (*Acanthocephala*) (syn. *C. limacis* Moul.) (in *Limax cinereus*, L. (*Arion*) *rufus*; Geneva).—Biehlinger, 1884, 15.
- triloba* Fil., 1857c, 3, pl. 1, fig. 1 (in *Planorbis carinatus*, *Lymnaeus stagnalis*; Turin).—Dies., 1858d, 252, to (*Acanthocephala*) (in *Lym. stag.*, *Plan. car.*).—Erc., 1881e, 15–17, pl. 1, figs. 20–22; 1882a, 251–253 (in *Lim. stag.*, *Plan. car.*; Po, in Piemonte).—Par., 1894, 161 (in *Plan. corn.*, *P. carinatus*, *Lym. stag.*; Torino).
- tripes* Bosc, 1802a, v. 3, 227.
- tripos* Müeller, 1776, 206 (“in aqua marina”); 1786, 136, pl. 19, fig. 22.—Bruguière, 1792a, 457, 464–465.—Nitzsch, 1827, 69.
- tripunctata* Erc., 1881e, 23–25, pl. 1, figs. 27–28; 1882a, 259–261 (syn. *C. ephemera* Nitzsch) (in *Planorbis corneus*; liver and genital organs; Italy).—Mont., 1888, 10.—Par., 1894, 161 (in *Plan. corn.*; Bologna).
- tripus* Gmelin, 1790a, 3892, for *tripos* Müeller.
- tuberculata* Fil., 1857c, 8–9, pl. 2, figs. 19, 20 (in *Paludina impura*).—Braun, 1893a, 827.—Dies., 1858d, 248, to (*Gymnocephala*) (in *Pal. imp.*; Turin).—Harz, 1881c, 4.—Looss, 1894a, 138.—Par., 1894, 163.
- turbo* Müeller, 1786, 123–124, pl. 18, figs. 13–16 (in aqua rivulari cum *Lemna rarior*).—Abildg., 1793, 79.—Bosc, 1802a, v. 3, 225.—Bruguière, 1792a, 456, 459–460.—Nitzsch, 1827, 68, type of *Urocentrum*.
- varicans* Abildg., 1794, 89, pl. 3a, figs. 1–4 (“Hab. primitivum ignotum, in aqua rivulari”).—Dies., 1850a, 293 (to *Cheilostomum* as type).—Moul., 1856a, 213 (syn. *Ch. varicans* Dies.).—Pag., 1857, 6.
- varsoviensis* Ssinitzin, 1906, 683, to (*Gorgodera*).
- vermicularis* Müeller, 1786, 133–134, pl. 20, figs. 18–20 (in aqua ubi *Lemna vegetat*).—Bosc, 1802a, v. 3, 227.—Bruguière, 1792a, 457, 463–464.—Nitzsch, 1827, 68, to *Dicranophorus*.
- vesicata* Uliěný, 1878, 211–217, pl. 6, figs. 1–5 (in *Cylcas rivicola*; Mähren).—Braun, 1893a, 831, 832; 1893b, 183; 1898a, 1581.—Looss, 1894a, 227 (= *C. macrocerca* Fil.).
- vesiculifera* Dies., 1855a, 378, 389, to (*Xiphidiocerc.*) (*C. vesiculosa* Fil., 1854, renamed) (in *Paludina vivipara*); 1858d, 254–255, to (*Acanthocephala*) (syns. *C. vesiculosa* Fil.; *C. (Xiphidiocerc.) vesiculifera* Dies.; *C. microcotyla* Fil.) (in *Pal. vivip.*, *P. achatina*).
- vesiculosa* Dies., 1850a, 295–296 (in *Paludina vivipara*; based on *Cerc. I.* Baer, 1827b; Regiomontii, Berlin, Heidelberg); 1855a, 385 to (*Eucerc.*); 1858d, 254 (of Fil.), syn. of *C. (Acanthocephala) vesiculifera*, 254 (syn. *C. (Eucerc.) vesiculosa* Dies.) to (*Acanthocephala*).—Braun, 1892a, 797, 806.—Erc., 1881e, 9–10, pl. 1, figs. 18–19, 12, 52; 1882a, 245–246, 248, 288 (in *Pal. achatina*, *P. vivip.*; Italy).—Fil., 1854a, 12–13, 22, pl. 1, figs. 12–14; 1855b, 23; 1857c, 14–15, 16, 17, pl. 2, figs. 22–23, 24, 25 (in *Pal. vivip.*, *P. ach.*; Lake Majeur).—Moul., 1856, 81–82, 103–104, 158–159, pl. 5, bis figs. 13, 14; 260 (in *Pal. vivip.*; Berlin).—Pag., 1857, 21–22, pl. 2, figs. 1–4 (in *Pal. vivip.*).—Par., 1894, 163.—La Valette, 1855, 19–20, pl. 1, fig. S.
- vesiculosa* of Fil., 1854a, 12, 13, 22, 30, pl. 1, figs. 12–14 (in *Paludina vivipara*).—Dies., 1855a, 389 (renamed *C. (Xiphidiocerc.) vesiculifera*); 1858d, 254 (syn. of *C. (Acanthocephala) vesiculifera* Dies.).
- villoti* Mont., 1888, 194 (*C. setifera* Müeller of Villot, 1879, in *Scrobicularia tenuis*, renamed), 195, 197; 1888, 77.—Giard, 1897c, 954.

CERCARIA—Continued.

virgula (Fil., 1837) Dies., 1850a, 296; 1855a, 386, to (Eucerc.); 1858d, 260, to (Acanthocephala) (syn. C. (Eucerc.) *virg.* Dies.) (larva of *Dist. maculosum* Rud.) (in *Valvata piscinalis*, *Paludina impura*).—Biehringer, 1884, 15, 18.—Braun, 1892a, 749, 809; 1893a, 859.—Fil., 1855b, 5, 10, 19, 22, 23, pl. 1, figs. 5–10 (= *Dist. virg.*) (in *Pal. imp.*; Pavia Moncalier); 1856b, 85; 1857c, 6–7, pl. 1, figs. 9, 10 (in *Pal. imp.*).—Florance, 1866a, 8.—Harz, 1881c, 4, 7, 8.—Leuck., 1863, 504, 505, 506, fig. 173.—Linst., 1901, 197.—Looss, 1894a, 40.—Moul., 1856a, 51, 82, 99, 104, 161–163 (in *Pal. imp.*; Pavia Moncalier).—Par., 1894, 163.

viridis Müller, 1786, 126–127, pl. 19, figs. 6–13 (in aquis fossarum stagnantibus primo vere).—Bory, 1825a, 84.—Bosc, 1802a, v. 3, 226.—Bruguière, 1792a, 456., 460–461.—Nitzsch, 1827, 68, to *Enchelys*.—Schränk, 1803, 80–83.

vitrina Linst., 1887, 105–106, pl. 2, figs. 8, 17c (in *Zebrina detrita*; Frauenberg b. Sondershausen).—Braun, 1893a, 831.

vittelliloba (Olss., 1876) Ssinitzin, 1906, 683, to (Gorgodera).

vivax Sons., 1892, Oct. 7, 137–138, pl. 18, fig. 3 (in *Cleopatra bulimoides*; Cairo, Egypt).—Braun, 1893b, 183 (in *Cl. bul.*).—Looss, 1896b, 210–223, pl. 15, figs. 162–177 (in *Cl. bul.*; Egypt, Tunis; *Melanopsis præmorsa*).—Rossbach, 1906, 370.

CERCARIÆ, plural of Cercaria.

gorgoderæ cynoidis Zeder, 1800, of Kowal., 1904 (9), 24 (in *Cyclas cornea*; Dublany).

CERCARIEA Nitzsch, see Dies., 1850a, 286, 292; 1855a, 383–400; 1858d, 241–243.—Goldb., 1855a, 15.—Mont., 1888, 83.

CERCARIÆUM Dies., 1855a, 397–400 (collective group and not as true generic name, for little known and doubtful forms of *Cercariæa* Nitzsch).—Bettend., 1897a, 4, 5, 7, 9, 12, 23, 30, 32, 33, 37, 39, 41, 42, 43, pl. 1, figs. 1, 2, 3, 5, 7, pl. 2, figs. 11, 15, 16, 17, pl. 3, figs. 18, 19, 20, 21, 22, 23, pl. 4, figs. 24, 25, 30, pl. 5, figs. 31, 32; 1897, 309, 311, 313, 316, 327, 334, 336, 337, 343, 345, 346, pl. 28, figs. 1–3, 5, 7, pl. 29, figs. 11, 15–17, pl. 30, figs. 18–23, pl. 31, figs. 24, 25, 30, pl. 32, figs. 31, 32 (in *Helix hortensis*).—Blochmann, 1892b, 649–652 (in *Helix hortensis*).—Blochmann & Bettend., 1895a, 218, 219, figs. 4, 5 (in *Helix hortensis*).—Brand., 1898a, 214 (22).—Braun, 1893a, 830, 857.—Darr, 1902, 694.—Kowal., 1898h, 158 (55).—Looss, 1894a, 236.—Sons., 1897, 252 (*Cercariæum*).
1897: *Cercariæum* Sons., 1897, 252, for *Cercariæum*.

ancylilacustris Dies., 1855a, 400, based on Baer, 1827b, 656, in *Ancylus lacustris*; 1858d, 282.

conimediterranei (Fil., 1857c) Dies., 1858d, 282–283.

coregoniferæ Chavannes, —, 62, see Dies., 1858d, 283.—Linst., 1879a, 266 (in *Coregonus fera* Jur.).

cycladis rivicola (Dies., 1850) Dies., 1855a, 400 (in *Cyclas rivicola*); 1858d, 282.—Braun, 1893a, 830.

echinatum (Fil., 1837a) Dies., 1858d, 280 (syn. *Heterost. ech.* Dies.) (in *Paludina impura*; Ticinum).

erythrops Dies., 1855a, 400 (based on *Cerc. paludinæ impuræ* Baer, 1827b) (*Regiomontii*); 1858d, 270 (to *Histrionellina*).

flavescens (Pag., 1857) Dies., 1858d, 278 (in *Eulimus radiatus*; Heidelberg).

helicis Meckel [? see *helicis pomatiæ*].—Praun, 1891d, 424 (in *Helix nemoralis*; *H. strigella*); 1893a, 829, 856.—Hofmann, 1899a, 174, 175, 177, 178–185, 188, 193, 201, pl. 11, figs. 1, 3, 4, pl. 12, figs. 3, 4 (becomes mature in *Erinaceus europæus* to *Dist. leptosomum*, syn. *D. caudatum*).—Roewer, 1906, v. 41, 185–228, figs. 1, 2, 3, pl. 14, figs. 1–7, pl. 15, figs. 8–22; 1906, 5 Oct., 616–617; 1906, 9 Oct., 596–599; 1906, 15 Nov., 340–341.—Ziegler, 1905, 37.

helicis alternatæ Dies., 1855a, 398 (= *Dist. helici* Leidy, renamed) (in *Helix alternata*; Philadelphia); 1858d, 278 (syn. of *C. vagans*).—Leidy, 1857, 44.

helicis aspersæ Dies., 1855a, 398 (for *helicis asperæ* Dies., 1850a, 302, based on Duj., 1845a, 472); 1858d, 277 (syn. *Cerc. h. a. Moulinie*) (in *Helix aspersa*; Rennes).

helicis pomatiæ (Dies., 1850) Dies., 1855a, 398; 1858d, 278 (syn. *Cercaria sagittifera* Siebold) (in *Helix pomatia*).

limacis (Dies., 1850) Dies., 1855a, 397; 1858d, 277 (in *Limax agrestis*, *L. cinereus*, *L. rufus*; Rhedoni).—Braun, 1893a, 831.—Jackson, 1888, 651.

CERCARLEUM—Continued.

lymnæi auricularis (Fil., 1854) Dies., 1855a, 398; 1858d, 278–279 (in *Lymnæus auricularis*).

lymnæi palustris Dies., 1855a, 399 (for *Heterost. lymnæi* Dies., 1850a, 302, based on Duj., 1845a, 473) (=Dist. *lymnæi* Dies., 1850, renamed); 1858d, 279 (in *Lymnæus palustris*; Rennes).—Sons., 1897, 252.

lymnæi peregrini Dies., 1858d, 279 (in *Lymnæus peregrinus*; Turin).

melanops Dies., 1855a, 400 (based on *Cercaria paludina impura* Baer, 1827b, 655); 1858d, 270 (to *Histriellina*).

naidis proboscideæ Dies., 1858d, 283.

ovatum (Dies., 1850) Dies., 1858d, 279–280 (syns. *Heterost. ov.* Dies., Dist. *luteum* La Valette) (adult=Dist. *luteum* Wagener, in *Esox lucius*) (in *Paludina vivipara* (Berlin, Heidelberg, Regiomontii).—Mont., 1893, 190.

paludina impura (Fil., 1854) Dies., 1855a, 399 (in *Paludina impura*); 1858d, 280 (syn. of *C. pal. imp. inermis*).

paludina impura armatum (Fil., 1854a) Dies., 1858d, 281 (in *Paludina impura*).—Par., 1894, 161 (in *Bythinia tentaculata*).

paludina impura inermis (Fil., 1854a) Dies., 1858d, 280 (syns. *C. pal. imp.* Dies., Cerc. *pal. inermis* Morl., Dist. *pal. imp. inermis* Fil., adult=Dist. *perlatus* Nord.) (in *Paludina impura*).—Linst., 1873, 1 (larva of Dist. *perlatus* Nord.).—Par., 1894, 162 (in *Bythinia tentaculata*; Pisa).

paludina impura tentaculorum Dies., 1855a, 399 (based on Dist. *pal. imp.* Baer, 1827b, 655) (in *Paludina impura*; Regiomontii); 1858d, 281.

paludina vivipara Dies., 1855a, 399 (=Cercaria *helicis vivipara* Dies., 1850a, 298, renamed); 1858d, 279 (in *Paludina vivipara*; Vilnae).

physæ fontinalis (Baer, 1827) Dies., 1855a, 400; 1858d, 282.

planorbis carinatus (Fil., 1857) Dies., 1858d, 281–282.

planorbis cornei (Dies., 1850) Dies., 1855a, 400; 1858d, 281 (syn. of *C. plan. cornei* (ovariorum)).

planorbis cornei (hepatis) Dies., 1858d, 281 (in *Planorbis corneus*).

planorbis cornei (ovariorum) Dies., 1858d, 281 (syn. *C. planorbis cornei* Dies.) (in *Planorbis corneus*).

spinulosum Hofmann, 1899a, 178, 185, 193, 201, pl. 11, fig. 2, of pulmonates, see Dist. *spinulosum* of *Erinaceus europæus*.

tellina baltica (Dies., 1850) Dies., 1855a, 400; 1858d, 283.—Braun, 1893a, 830.—Pag., 1862, 298.

vagans (Leidy, 1850) Dies., 1855a, 398; 1858d, 278 (syns. Dist. *helicis* Leidy, D. *pericardium* Crep., D. *vagans* Leidy, C. *helicis alternata* Dies.) (in *Helix albolabris*, H. *alternata*; Philadelphia).

CERCARYÆUM Sons., 1897, 252, for Cercariæum.

CERCORCHIS Luehe, 1900aa, 566 (tod. linstowi), subg. of Telorchis; κέρκος, tail.—Braun, 1901a, 14; 1901b, 58; 1901i, 58.—Looss, 1902m, 831, 832, 834, 835.

1899: Telorchis Looss, 1899b, 566 (tod. linstowi).

linstowi [i] (Stoss., 1890) Luehe, 1900aa, 566.

CHARAXICEPHALUS Looss, 1901i, 7 Nov., 621–622 (m. robustus); 1902, 541, 542, 562, 579, 582, 589, 590, 591, 596, 597, 598, 599, 600, 601, 602, 609, 611, 612–613 (diagnosis) (Pronocephalidae).—Pratt, 1902a, 890, 910 (key).

robustus Looss, 1901i, 621–622 (in *Chelone mydas*; Egyptian coast); 1902m, 416, 541–545, pl. 25, figs. 65–69, pl. 26, fig. 89, 548, 597, 599, 612.

CHEILOSTOMUM Dies., 1850a, 286, 293 (m. varicans); 1855a, 379, 381, 394; 1858d, 273.—Burm., 1856a, 250.—Fil., 1857c, 8.—Goldb., 1855a, 15.—Moul., 1856a, 121, 123.

varicans (Abildg., 1794) Dies., 1850a, 293; 1855a, 394 (Hab. *primitivum* ignotum); 1858d, 273 (free; Dania).—Moul., 1856a, 213 (to Cerc.).—Pag., 1857, 6.

CHIORCHIS Fischder., 1901, 374 (m. fabaceus); 1902a, 43–44.—Looss, 1902m, 442.—Pratt, 1902a, 887, 893 (key).—Shiple, 1905, v. 6, 8.

dilatatus Daday, 1905, 233 (in *Colossoma brachypoma*; Paraguay).

fabaceus (Dies., 1839) Fischder., 1901, 374; 1902a, 44–46, 53 (in *Manatus exunguis*, M. *latirostris*; Brazil and North America); 1903b, 528.

oxycephalus (Dies., 1836) Daday, 1905, 233 (in *Colossoma brachypoma*).

CHONCHOSOMUM Galli-Valerio, 1901c, 364, for Conchosomum.

alatum (Goeze, 1782) Galli-Valerio, 1901c, 364 (in dog).

CHORICOTILE Parona & Perugia, 1889, 743, (for Choricotyle).

CHORICOTYLE Ben. & Hesse, 1863; 1864, 96, 109 (m. chrysophryi).—Braun, 1890a, 477, 498, 516, 517, 522, 546.—Cerf., 1895h, 918, 920; 1896, 514, 515.—Mont., 1888, 8, 11, 86, 89, 99; 1903, 336 (syn. of *Diclidophora*).—Par. & Per., 1890, 10, 13.—Tasch., 1879, 240.

1889: Choricotile Par. & Perugia, 1889, 743, for Choricotyle.

chryophrii Cerf., 1898a, 303 (for chrysophryi).

chrysophris Mont., 1888, 11, 16 (for chrysophryi).

chrysophryi Ben. & Hesse, 1863; 1864, 109–110, pl. 11, figs. 16–22 (in *Chrysophris aurata*).—Cerf., 1898a, 303 (chryophrii).—Mont., 1888, 11, 16 (chrysophris).—Tasch., 1879, 247 (to *Octobothrium*).

marionis St. Loup, 1885, 176 (in *Mæna vulgaris*).

taschenbergii Par. & Perugia, 1889, 743 (Choricotile); 1890, 743 (Choricotile) (in *Sargus rondeletii*; Genova); 1890, 6.—Braun, 1890a, 418, 535, to *Octobothrium*.—Cerf., 1898a, 303.

CLACOCÆLIUM Stiles & Hass., 1898a, 89, misprint for Cladocœlium.

CLADOCALCIUM Pontallié, 1853, 104, 105 (misprint for Cladocœlium).—Stiles, 1904i, 21.—Stiles & Hass., 1898, 86, 89.

CLADOCÆLIUM Duj., 1845a, 382, 388, 389 (m. hepaticum), as subg. of Dist.—R. Bl., 1891, 609, 610.—Braun, 1893a, 885, 886, 909, 910; 1895, 138.—Looss, 1899b, 535.—Mont., 1888, 38, 92, 105; 1893, 150, 154.—Stiles, 1904i, 21.—Stiles & Hass., 1898a, 86, 89 (Cladocalcium).—Stoss., 1892, 4, 7, raised to generic rank.

1853: Cladocalium Pontallié, 1853, 104, 105, misprint.

1898: Clacocœlium Stiles & Hass., 1898a, 89, misprint.

delphini (Poir., 1886) Stoss., 1892, 10 (in *Delphinus delphis*).

elephantis (Dies., 1858) Stoss., 1892, 9 (in *Elephas indicus*; Rangoon).

giganteum (Dies., 1858) Stoss., 1892, 9–10 (syns. Dist. gig., Fasc. gig., Dist. magnum) (in *Camelopardalis giraffa*, *Cervus aristotelis*, *C. canadensis*, *C. elaphus*, *Dama vulgaris*, *Portax picta*).—Stiles, 1898a, 49, 51; 1904i.—Ward, 1895, 253 (syn. of Fasc. magna); 1903, 866 (in part syn. of Fasc. magna).

hepaticum (Linn., 1758) Stoss., 1892, 7–9 (syns. Fasc. hepat., Dist. hepat., Dist. cavie) (in *Antilope dorcas*; *Bos bubalis*, *Egitto*; *B. taurus*; Padova, America; *Camelus bactrianus*, *Cavia cobaja*, *Capra hircus*, *Cervus capreolus*, *C. elaphus*; *C. virginianus*, North America; *Castor fiber*, *Dama vulgaris*, *Elaphus indicus*, *Equus asinus*, *E. caballus*, Padova, North America; *Felis domestica*, *Homo*, Dalmazia, Spagna, Zurigo. Liverpool; *Lepus cuniculus*, *L. timidus*, *Macropus giganteus*; *Ovis aries*, Padova, Normandia, Mecklenburg, Offenbach, Buenos Aires; *Ovis argali*; *Portax picta*, India; *Sus scrofa*).—Braun, 1903, 147 (to Fasc.); 1906, 150, fig. 83 (to Fasc.).—Duj., 1845a, 389.—Rail., 1893a, 342.—Stiles, 1898a, 29; 1904i, 22.—Ward, 1895, 327 (in *Homo*); 332 (in *Bos taurus*); 335 (in *Ovis aries*); 338 (in *Equus caballus*); 1903, 865 (to Fasc.).

holostomum (Rud., 1819) Stoss., 1892, 145.—Braun, 1902b, 136, syn. of *Urogonimus macrostomus*.

palliatum (Looss, 1885) Stoss., 1892, 10–11 (in *Delphinus delphis*).

rochebruni (Poir., 1886) Stoss., 1892, 11 (in *Delphinus delphis*).

sulcatum (Linst., 1883) Stoss., 1892, 145.

(CLADOCÆLIUM) Duj., 1845a, 382, 388, 389 (m. hepaticum), subg. of Dist.

hepaticum (Linn., 1758) Duj., 1845a, 389–390, see Fasc.

macrocotyle (Dies., 1858) Stoss., 1886, 63.

miescheri Zschokke, 1890, 764 (in *Trutta salar*).

pagelli (Ben., 1870) Stoss., 1886, 59.

veliporum (Crep., 1837) Stoss., 1886, 64.

CLADORCHINÆ Fischder., 1901a, 372; 1902a, 35; 1903h, 490, subf. of Paramphistomidae.—Looss, 1902m, 439.—Pratt, 1902a, 887, 892 (key), includes *Gastrodiscus*, *Homalogaster*, *Diplodiscus*, *Cladorchis*, *Chiorchis*; related genus *Balanorchis*.—MacCallum, 1905, 668.—Shipley, 1905, v. 6, 4, 8.—Stiles, 1904i, 45.

- CLADORCHIS Fischder., 1901a, 372 (tod. pyriformis); 1902a, 35-36, 43, 45.—Looss, 1902m, 836.—MacCallum, 1905, 668.—Pratt, 1902a, 887, 893 (key).—Shipley, 1905, v. 6, 8.
- asper* (Dies., 1839) Fischder., 1901, 373; 1902a, 39 (in *Tapirus americanus*); 1903f, 602-606, pl. 29, figs. 82-85.
- giganteus* (Dies., 1836d) Fischder., 1901, 373 to (*Stichorchis*); 1902a, 41-42, 43 (in *Dicotyles albirostris*, *D. torquatus*); 1903f, 611-614, pl. 30, figs. 89-92.
- helostomatis* MacCallum, 1905, 673-678, fig. B (in *Helostoma temminckii*; Palembang, Sumatra).
- pangasii* MacCallum, 1905, 668-673, fig. A (in *Pangasius nasutus*; Palembang, Sumatra).
- pyriformis* (Dies., 1839) Fischder., 1901, 373; 1902a, 36-38, 39, fig. 3 (in *Tapirus americanus*); 1903h, 596-602, figs. 78-81.
- schistocotyle* Fischder., 1901, 373, to (*Taxorchis*) (in *Dicotyles torquatus*); 1902a, 40-41 (syn. *Amphist. giganteum* Dies., 1835 e. p.; Brazil, to (*Taxorchis*) (in *Dic. torq.*); 1903f, 607-610, pl. 29, figs. 86-87, pl. 30, fig. 88 (*schistocotyle*).
- subtriquetrus* (Rud., 1814) Fischder., 1901, 373-374, to (*Stichorchis*); 1902a, 35, 42-43, to (*Stichorchis*) (syns. *Amphist. subtriq.* Rud., *Dist. amphistomoides* Boj.) (in *Castor fiber*); 1903h, 567, to (*Stichorchis*); 1903f, 615-620, pl. 30, figs. 93-96.
- watsoni* (Conyngnam, 1904) Shipley, 1905, 129-135, pl. 4, figs. 1-10 (in *Homo*; Africa); 1905, 1-9, pl. 4, figs. 1-10; 1905, April, 205; 1905, 8 April, 950; 1905, 2 Nov., 1298; 1905, 9 pp., 10 figs., 190.
- CLINOSTOMIDÆ Luehe, 1901, 488.—Looss, 1902m, 839 (includes *Clinost.*, *Harmost.*, *Itygogonimus*, *Urotocus*, *Hapalotrema*.—Odh. n., 1902, 42.
- CLINOSTOMINÆ Pratt, 1902a, 889, 907 (key), includes *Clinost.*, *Nephrocephalus*; additional genera *Sperost.*, *Microlistrum*, *Mesotretes*, *Hapalometra*, and *Distoma oricola*.—Odh. n., 1902, 42.
- CLINOSTOMUM Leidy, 1856, 45 (tld. *gracile*)^a [not *Clinostomus* Giard, 1856, 211, fish].—Braun, 1893a, 886, 887, 894; 1899, 1, 3; 1899, 465; 1899g, 484-488, 489-493; 1899h, 1-3; 1900h, 1-48, pls. 1-2, figs. 1-20; 1900c, 24-32; 1900, 27, 31; 1901b, 9, 34; 1901, 561; 1904, v. 2 (3), 24-25.—Darr, 1902, 655.—Looss, 1899b, 649-651 (see *æquale*, *heteroclitum*, *commutatum*); 1902m, 839.—Luehe, 1899, 538; 1900, 557; 1901, 488.—MacCallum, 1899, 707.—Mont., 1893, 156.—Odh. n., 1902, 29, 42.—Stiles & Hass., 1898a, 86 (*gracile*, designated type), 96.—Odh. n., 1902, 29.—Pratt, 1902a, 889, 907 (key).—Stiles, 1901, 184.
- africanum* Stoss., 1906, in Galli-Valerio, 1906, 49-50, fig. 2, in int. of fish; French Congo.
- complanatum* (Rud., 1814) Braun, 1899g, 490, 491 (in *Ardea cinerea*; Berlin); 1900, 27-28, 31; 1900h, 23-25, 26, 41, 42, pl. 1, figs. 6, 7.—Stoss., 1901, 97 (9) (in *Ardea cinerea*; Albana).
- detruncatum* Braun, 1899g, 490 (*Dist. dimorphum* Dies., p. p.) (in *Mycteria americana*, *Ciconia americana*; Brazil); 1900, 29-30, 31; 1900h, 28, 32-34, 35, 37, 39, 40, pl. 2, fig. 11.
- dimorphum* (Dies., 1850) Braun, 1899g, 490 (in *Ardea cocoi*; Brazil); 1900h, 12, 36-38, pl. 1, figs. 3, 9, pl. 2, figs. 12, 18; 1900, 29, 31.—Looss, 1899b, 650.
- dubium* Leidy, 1856, 45 (in *Rusticola minor*); 1904a, 88.—Braun, 1899g, 484; 1900h, 2.—Cobbold, 1859, 10.—Dies., 1858e, 336.—Stoss., 1892, 181.—Stiles & Hass., 1898a, 86.
- foliiforme* Braun, 1899g, 490 (in *Ardea purpurea*; Italy); 1899h, 2; 1900h, 20, 30-32, 42, pl. 1, fig. 5.
- gracile* Leidy, 1856, 45 (in *Pomotis vulgaris*, encysted; *Esox*, intest.); 1904a, 88.—Brand., 1898a, 203 (11).—Braun, 1892a, 651; 1899g, 484, 486, 491 (doubts exist as to identity of *gracile* and *heterostomum*); 1900h, 2, 4, 5, 6, 13, 42; 1900, 26, 31.—Dies., 1858e, 336 to *Dist.*—Looss, 1894a, 137, 138, 171; 1899b, 585, 649, 650, 651 (*gracile* not identical with *heterostomum*).—MacCallum, 1899a, 704, 705, 707, 708.—Mont., 1888a, 92; 1893, 155.—Staff., 1904, May 3, 493 (gills of *Perca flavescens* Mit.; Canada).—Stiles, 1901, 176.—Stiles & Hass., 1894, 414; 1898a, 86, 96 (type of *C.* and syn. of *Dist. heterostomum* Rud.).

^a Looss considers that *gracile* is not the young form of *heterostomum*, but he accepts the latter as type; this is doubtless a lapsus.

CLINOSTOMUM—Continued.

- helvans* Braun, 1899g, 490 (in *Ardea coerules* and *Nycticorax gardeni*; Rio de Janeiro); 1900, 30, 31; 1900h, 8, 11, 39–41, pl. 2, fig. 10.
- heterostomum* (Rud., 1809) Braun, 1899g, 487, 489–490 [t. h. *Ardea purpurea*; t. l. apparently Europe]; 1900c, 30–31; 1900h, 11, 19–22 (includes *Dist. het. Rud.*, 1809a, 381; 1819a, 102, 388; Duj., 1845a, 400; Dies., 1850a, 353; Stoss., 1892, 64; Par., 1896, no. 258; *D. hians* p. p. Par., 1887, 331 from *Nycticorax griseus*), figs. 1–2, (29), 42, (44, 45); 1902b, 124.—Looss, 1899, 650.
- heterostomum* MacCallum, 1899a, 697–710, figs. 1–7 (in *Ardea herodias*; Dunville, Ontario, Canada).—Braun, 1900c, 140–141 (identical with *Dist. marginatum* Rud. and ? *D. complanatum* Rud. and ? *D. heterostomum* Wright); 1900h, 29, 45 (syn. of *Clinost. marginatum*); 1904, 23.
- lambitans* Braun, 1899g, 490 (“in Schlunde eines Reiher; Semanabay, Westindien”); 1900c, 30, 31; 1900h, 41–42, pl. 2, figs. 16, 17.
- marginatum* (Rud., 1819) Braun, 1899g, 490 (in *Ardea* sp., Brazil; *Ardea cocoi* and *Mycteria americana* in Brazil), 491; 1900c, 28, 31; 1900h, 25–30, 32, 37, 41, 45, 46, pl. 1, figs. 4, 8, pl. 2, figs. 19, 20.
- reticulatum* (Looss, 1885) Braun, 1899g, 491.—Looss, 1899, 651.
- sorbens* Braun, 1899g, 490 (in *Tantalus loculator*; Brazil); 1900c, 30, 31; 1900h, 34, 37, 45, pl. 2, figs. 13–15; 1902b, 129.

CLONORCHIS Looss, 1907, Feb. 1, 147–152 (tod. *sinensis*).

endemus (Baelz, 1883) Looss, 1907, Feb. 1, 150–152.

sinensis (Cobbold, 1875) Looss, 1907, Feb. 1, 148–150 (syn. *Dist. innocuum* Baelz, 1883).

CODONOCEPHALUS Dies., 1850a, 287, 317–318 (m. *mutabilis*); 1858e, 312, 323, 393.—Brand., 1888a, 12, 13, 51; 1890a, 578.—Braun, 1894l, 166; 1895b, 132.—Goldb., 1855a, 17.—Mont., 1888, 84, 92.—Moul., 1856a, 16.—Villot, 1898, 542.

mutabilis Dies., 1850a, 317–318, *Amphist. urnigerum* Rud., 1819, renamed (in *Pelophylax esculentus*); 1858e, 323 (in *Pel. esc.*).—Baird, 1853a, 49 (=Holst. urn. Duj.).—Brand., 1888a, 13.—Braun, 1892a, 796; 1893a, 870; 1894, 167.—Gastaldi, 1854a, 14 pp., 2 pls.—Giebel, 1857, 266 (*Amphist. urn. Rud.*).—Hannover, 1864a, 3, 4.—Mol., 1858, 128; 1859, 818–819, pl. 1, fig. 2 (in *Pel. esc.*; Padua); 1861, 197.—Mueh., 1898, 16.—Sons., 1893, 188, 190 (syns. *Amphist. urn. Rud.*; *Holost. urn. Duj.*) (in *Rana esculenta* L.).

CÆNOGONIMINÆ Looss, 1899b, Dec., 573, 583–584, 586, 619; 1902, 839.—Jägers., 1903a, 14, 15.—Luehe, 1901, 488.—Odhn., 1900, 13, 21; 1905, 314.

CÆNOGONIMUS Looss, 1899b, Dec., 585, 586, 619 (tod. *heterophyes*); κοινός, gemeinsam; γόνιμος, Erzeugende; 1900d, 608; 1902m, 515, 833, 835.—Braun, 1901b, 56; 1901e, 334 (syn. of *Cotylogonimus* Luehe); 1901i, 56.—Jägers., 1900c, 736; 1903a, 10, 11, 13, 15.—Luehe, 1900aa, 557.—Odhn., 1900, 21, 22.—Ofenheim, 1900, 183.—Stiles, 1904i, 43.—Stiles & Hass., 1900a, 563.

fraternum (Looss, 1894) Jägers., 1903a, 3, for *fraternus*.

fraternus (Looss, 1894) Looss, 1899b, 585, 700–701; 1901b, 205.

heterophyes (Sieb., 1853) Looss, 1899b, 585, 678, 699–700, 701.—Braun, 1903, 164 (to *Cotylogonimus*).—Jägers., 1903a, 3.—Ward, 1903, 870.

COLEPS Nitzsch, 1827, 69 (m. *Cerc. hirta*).CONCHOSOMA Stoss., 1898, 20, for *Conchosomum*, q. v.

CONCHOSOMINÆ Rail., 1896, 160.

CONCHOSOMUM Rail., 1896, Mar. 15, 160, Hemist. Dies., 1850 [not Swainson] · renamed, tod. *alatum*.—Stoss., 1898, 20.—See also *Alaria* 1788.

1898: *Conchosoma* Stoss., 1898, 20.

1901: *Chonchosomum* Galli-Valerio, 1901c, 364.

alatum (Gœze, 1782) Rail., 1896, 160 (in intest. of *Canidæ*).—Piana, 1898, 3.

spathaceum (Rud., 1819) Stoss., 1898, 20–21 (in *Larus canus*, *L. argentatus* *micahellesii*; Triest).

spatula (Dies., 1836) Stoss., 1898, 20 (in *Buteo vulgaris* at Triest, Iamiano; *Falco peregrinus* at Osipo; *Circus aeruginosus* at Verteneglio, Montalcone, Doberdò, Iamiano).—See *spatula*.

COSMOCOTYLEA Dies., 1858e, 313, 360, 365 (subf. of *Monocotylea*, contains *Gasterost.*, *Rhipidocotyle*, *Callicotyle*).—Tasch., 1878, 565, 566.COTYLAGASTER Mont., 1904, 65, misprint for *Cotylogaster*.

COTYLASPIIS Leidy, 1857a, 18 (m. *insignis*); 1858a, 110; 1904a, 110.—Braun, 1893a, 886, 887, 888, 891, 894, 896.—Dies., 1859c, 438–439.—Hoyle, 1890, 539 (one species; in *Anodonta*).—Jackson, 1888, 650 (endoparasitic, American *Anodonta*), 654.—Kofoid, 1899, 180, 181, 182, 183, 184.—Mont., 1888, 89, 91, 1892, Oct. 7, 196, 197, 198, 199, (syn. of *Aspidogaster*) 202.—Nickerson, 1902; 599, 603, 604, 605, 612, 613, 615, 617.—Pratt, 1902a, 887, 891 (key).—Shipley & Hornell, 1904, 98.—Tasch., 1879, 259.

insignis Leidy, 1857a, 18 (in *Anodonta fluviatilis*, A. *lacustris*); 1858a, 110.—Dies., 1859c, 439.—Kofoid, 1899a, 179–186 (identity with *Platyaspis anodontæ*); 1899b, 179–186.—Mont., 1892, Oct. 7, 197, 201 (?syn. of *Aspidogaster conchicola*), 202.—Nickerson, 1902, 612, 613, 614, 619 (in *Unionidæ*; North America).—Osborn, 1905a, 201–242 (habits and structure), figs. 1 (a–f), 1–81; 1905, 201–242, 3 pls., 1 fig.; 1905, 317–318.—Tasch., 1879, 259 (in *Anod. fluvi.*, A. *lac.*; North America).—Also reported for *Anodonta corpulenta*, *Unio alatus*, *U. anadontoides*, *U. confragosus*, *U. edentulus*, *U. elegans*, *U. gracilis*, *U. katharinæ*, *U. ligamentinus*, *U. rectus*, *U. tuberculatus*.

lenoiri (Poir., 1886) Nickerson, 1902, 613, 614, 619 (in *Tetrathyra*; Senegal).

COTYLEA Dies., 1850a, 286, 293 [not of Mont., 1891, 111], subtribe of *Dicranocœla* to contain *Rhopalocœra*, *Bucephalus*, *Malleolus*, *Cerc.*, *Histrionella*, *Diplocotyle*.—Goldb., 1855a, 15.

COTYLEGASTER Sieb., 1877 MS. in Cobbold, 1877e, 235, 237 (lapsus for *Aspidocotylus*) [not *Cotylogaster* Mont., 1892].

cochleariforme (Dies., 1838) Sieb., 1877 MS. in Cobbold, 1877e, 235, 237 (lapsus), see *Gastrodiscus sonsinoii*; 1879b, 360 (syn. *Aspidogaster cochleariformis*) “not to be confused with *Gastrodiscus*.”—Ward, 1895, 338 (“error—*Gastrodiscus ægyptiacus*,” in *Equus caballus*).

cochleariformis (Dies., 1838) Zuern, 1882, 222 (see *cochleariforme*).—Lejtenyi, 1881a, 1.—Sons., 1895, 179, 180; 1896, 297.

COTYLOCEPHALA Dies., 1858e, 315 (f. of *Trematoda plectanophora* to contain subf. *Aplacoplectana*, *Placoplectana*), 382.—Ben. & Hesse, 1864, 95.—Mont., 1888a, 84.

COTYLOGASTER Mont., 1892a, Oct. 7, 168, 169, 170, 173, 174, 175, 176, 177, 179, 180, 183, 184, 185, 186, 187 (*Aspylogaster*), 188, 189, 190, 191, 194, 195, 196, 197, 198, 206^a (m. *michælis*), 213 (g. of *Aspidobothridæ*); 1893, 37, 111, 114, 202, 205, 206, 209.—Braun, 1893a, 888, 890, 891, 894, 896, 897, 917, 918; 1893b, 177, 178, 179, 182, 188.—Gamb., 1896, 73.—Kofoid, 1899, 182.—Lejtenyi, 1881a, 2.—Looss, 1894a, 131, 134; 1902, 428, 429.—Nickerson, 1902, 602, 604, 606, 610, 611, 612, 617.—Pratt, 1902a, 887, 891 (key).—Stoss., 1898, 19.

1892: *Aspylogaster* Mont., 1892, Oct. 7, 187, for *Cotylogaster*.

michælis Mont., 1892, Oct. 7, 168–173, 198, 206–207, pls. 21–22 (in *Cantharus vulgaris*; Triest); 1893, 52, 82, 145, 202; 1902, 139.—Braun, 1893a, 887, 898; 1893b, 184.—Jägers., 1899, 203, 207.—Looss, 1902, 420, 421, 428.—Nickerson, 1902, 597, 598, 599, 600, 601, 602, 603, 605, 606, 610, 611, 618 (in *Can. vulg.*; Triest).—Stoss., 1898, 19; 1899, 3.

occidentalis Nickerson, 1900, Feb. 16, 250 (in *Sheepshead*; Mississippi Valley); 1901, Mar. 8, 378; 1902, 597–624, pl. 32, figs. 1–7, pl. 33, figs. 8–21 (in *Aplodinotus grunniens*; Minnesota).

COTYLOGONIMINÆ Pratt, 1902a, 888, 897 (key), includes *Cotylogonimus* and *Cryptocotyle*.

COTYLOGONIMUS Luehe, 1899k, Dec., 538, 539 (tod. heterophyes); 1900, 555, 557.—Braun, 1900h, 6; 1901e, 334, 338; 1901i, 56; 1903, 164; 1906, 171–172.—Pratt, 1902a, 888, 898 (key).—Looss, 1900, 607; 1902, 813, 833.—Stiles, 1904i, 43.—See *Heterophyes*.

[*concauum* (Crep., 1825), 1899 to (*Cryptocotyle*).]

fraternus (Looss, 1894) Braun, 1901e, 337.—Fischder., 1903h, 548.

heterophyes (Sieb., 1853) [Luehe, 1899k, 539].—Braun, 1901e, 335, 337, 338; 1903, 3 ed., 164–166, fig. 114; 1906, 136, fig. 71, 172–173, fig. 105.—Fischder., 1903h, 548.—Ward, 1903, 870 (to *Heterophyes*).—Type of *Heterophyes*, q. v.

persicus Braun, 1901e, 334–338, pl. 20, fig. 13 (in *Persian wolf*).

COTYLOPHORA Mont., 1888a, 84, 93, for *Trematoda cotylophora* Dies., 1858e, 312, a subtribe containing fams. *Monocotylea*, *Tricotylea*, *Polycotylea* [not *Cotylophori* Mayer, 1841a, 24, 25].

- COTYLOTRETUS Odhn., 1902, 32 (m. rugosus).—Pratt, 1902a, 888, 897 (key).
rugosus Odhn., 1902, 32–45, fig. 3 (in *Coluber pullatus* = *Spilotes pullatus*).
 CRANIOCEPHALA Mont., 1905, 21–24 (m. birói), a temnocephala; *κράνειον*, cornelian-tree.
birói Mont., 1905, 21–24 (named after L. Biró), figs. 1–2 (in *Sesarma gracilipes* A. Edw.; Sattelberg, New Guinea).
 CRASPEDELLA Haswell, 1893e, 96, 98, 99, 112, 114, 132, 141, 143, 145 (m. spenceri); 1893f, 154.—Mont., 1899, 84, 115, 116, 117, 120, 121.—Pratt, 1900a, 646, 647 (key).—St.-Remy, 1898, 522, 529.
spenceri Haswell, 1893e, 97, 98, 113, 142, pl. 13, fig. 21, pl. 15, fig. 3 (in *Astacopsis bicarinatus*); 1900, 433.—Mont., 1899, 84, 121 type (in *Ast. bic.*; Austr.).—Pratt, 1900a, 655, 657, fig. 2.—St.-Remy, 1898, 529–530, fig. 1 (in *Ast. bic.*).
 CREADIINÆ Looss, 1899b, Dec., 571.—Luehe, 1900, 487.—Odhn., 1901, 483.
 CREADIUM Looss, 1899b, Dec., 570–571, 574, 580, 595 [not *Creadium*, *Creadion* Vieill., 1816, bird] tod. isoporum; 1900d, 3 Dec., 602 (renamed *Allocreadium*).—Braun, 1900, 232; 1901b, 33.—Luehe, 1900, 487, 489; 1901, 397.—Odhn., 1901, 483.—Stiles, 1901, 189.—[See also *Dist. commune*, *D. scorpaenæ*, *D. fasciatum*, *D. sophiæ*, *D. bacillare*, *D. pedicellatum*, *D. album*, *D. mormyri*, *D. obovatum*.—Looss, 1899b, 571.
angusticolle (Hausmann, 1896) Looss, 1899b, 571 [possibly identical with *D. commune* Olss., 1868, 31].
isoporum (Looss, 1894) Looss, 1899b, 570, 571, 595.
pegorchis Stoss., 1901, descr. of pl. 6, fig. 4, see *Allocreadium*.
 CREPIDASTOMUM Pratt, 1902a, 888, 896, misprint for *Crepidostomum*.
 CREPIDOSTOMUM Braun, 1900b, 232 (tod. metæcus); 1901b, 31, 33.—Heymann, 1905, 83, 89 (Fasciolidæ, Bunoderinæ).—Looss, 1902, 452, 453, 454.—Odhn., 1905, 296.—Pratt, 1902a, 888 (Crepidast., Fasciolidæ, Psilostominæ), 896 (key).—Staff., 1904, 491.
 1902: *Crepidastomum* Pratt, 1902a, 888, 896, misprint.
cornutum (Osborn, 1903) Staff., 1904, May 8, 490 (int. of *Ambloplites rupestris* Raf.; Canada), 491.
laureatum (Zed., 1800) Braun, 1900b, 232 (in fish).—Heymann, 1905, 87.—Looss, 1901, 564; 1902, 452, 453.—Odhn., 1905, 296.—Staff., 1904, May 3, 490 (int. *Salvelinus fontinalis* Mit.; Canada), 1. var. in *Perca flavescens* and *Stizostedion vitreum*, 2. var. in *Necturus maculatus*; 1905, Apr. 11, 682 (int. *Necturus maculatus*; Canada).
metæcus (Braun, 1900) Braun, 1900b, 230–232, pl. 10, fig. 13.—Heymann, 1905, 87.—Looss, 1901, 564; 1902, 451 (in *Vespertilio lasiopterus*), 452, 453.—Odhn., 1905, 296.
 CRICOCEPHALUS Looss, 1899b, Dec., 551, 666–667 (tod. delitescens), *ὁ κρίκος*, ring; 1901b, 209; 1901l, 620; 1902m, 531, 532, 534, 536, 537, 540, 542, 547, 562, 570, 576, 579, 580, 581, 582, 583, 585, 586, 587, 589, 591, 593, 599, 600, 601, 603, 604, 605, 609, 612, 614^a (delitescens=albus).—Braun, 1901a, 50.—Pratt, 1902a, 890, 910 (key).
albus (Kuhl & Hasselt, 1822) Looss, 1899b, 667; 1901l, 621; 1902m, 511, 532 (syn. delitescens), pl. 25, fig. 64; pl. 32, figs. 170–174; 533, 535, 536, 537, 539, 540, 541, 600, 605, 614.—Braun, 1901a, 45, figs. 10, 13, 15, 16.
delitescens Looss, 1899b, 666, 667, 759–762 (in *Chelonia mydas*; apparently Egypt), 773, figs. 76–80; 1902m, 531, 532 (syn. of *Cr. albus*), 549, 605.—Braun, 1901b, 38, 44, 45, 48.
megastomus Looss, 1902, 533–536, 540, 541, 605, pl. 25, figs. 57–60, pl. 27, fig. 90 (in *Chelone mydas*; Egyptian coast).
resectus Looss, 1902m, 537–541, 813, pl. 25, figs. 61–63, 813 (in *Chelone mydas*; Egyptian coast).
ruber (Kuhl & Hasselt, 1822) Looss, 1899, 762.
 CROBYLOPHORUS Kroyer, 1852–53a, 813 (m. chimæræ).—Dies., 1859c, 447 (syn. of *Gyrocotyle*).
chimæræ Kroyer, 1852–1853a, 813, 1226–1227 (in *Chimæra monstrosa* L.).—Dies., 1859c, 447 (syn. of *Gyrocotyle amphiptyches*).
 CROSSEDERA Mont., 1888, 92 (for *Crossodera*).

(CROSSODERA) Duj., 1845a, 382, 389, 434-437 [not Gould, 1837, aves], subg. (tld. nodulosa) of Dist.; raised to generic rank by Cobbold, 1860a, 31. See Crossodera.—Mont., 1888a, 12.—Stiles & Hass., 1898a, 84 (syn. of Bunodera).

auriculatum (Wedl, 1857) Stoss., 1886, 63.

campanula Duj., 1845a, 435, as doubtful (in *Esox lucius*; Rennes, France).

crucibulum (Rud., 1819) Duj., 1845a, 363, 435.

excisum (Rud., 1819) Duj., 1845a, 436-437.

laureatum (Zed., 1800) Duj., 1845a, 435-436. See Crossodera.

nodulosum (Frölich, 1791) Duj., 1845a, 434-435.—Stiles & Hass., 1898a, 85 (designated type of subg). See Crossodera.

papilliferum (Mol., 1861) Stoss., 1886, 60.

verrucosum (Busch, 1851) Stoss., 1886, 61.

CROSSODERA (Duj., 1845a, tld. nodulosa [nec Crossodera Gould, 1837, aves]) Cobbold, 1860a, 31-32.—R. Bl., 1891, 609.—Braun, 1893a, 885, 890, 909, 911; 1900b, 232; 1900h, 3.—Fil., 1857c, 14.—Hass., 1896a, 7 (syn. of Bunodera Rail.).—Looss, 1899b, 535, 538, 542, 580, 594, 598.—Mont., 1888, 92 (Crosse-dera), 105; 1892, Oct. 7, 214 (g. of Distominæ); 1893, 150, 152, 153, 155.—Rail., 1896, 160 (renamed Bunodera).—Stiles, 1901, 197.—Stiles & Hass., 1898a, 84, 85 (nodulosa type by designation), 87.—Stoss., 1892, 4, 5; 1899, 11.—Wagener, 1860, 165.

1888: Crossodera Mont., 1888, 92, misprint.

campanula (Duj., 1845) Cobbold, 1860a, 32 (in *Esox lucius*).

laureata (Zed., 1800) Cobbold, 1860a, 32 (in *Salmo trutta*, *S. fario*, *S. umbla*, *Thymallus vexillifer*).

linearis (Rud., 1793) Cobbold, 1860a, 32 (in *Phasianus gallus*).—Hass., 1896a, 2 (in *Gallus dom.*).—Rail., 1893a, 368.—Stoss., 1892, 146.

nodulosa (Frölich, 1791) Cobbold, 1860a, 32 (in *Perca fluviatilis*, *Acerina vulgaris*, *Aspro vulgaris*, *A. zingel*, *Lucioperca sandra*, *Esox lucius*, *Barbus communis*).

papillosa (Dies., 1850) Cobbold, 1860a 32 (in *Beroë rufescens*) (syn. Dist. beroës Will).

CRUMENA Nitzsch, 1827, 68-69 (m. Cerc. crumena).

(CRYPTOCOTYLE) Luehe, 1899, 539 (tod. concavum), subg. of *Cotylogonimus*; 1900, 557.—Braun, 1900h, 6; 1901b, 56; 1901i, 56.—Jægers., 1901, 981.—Looss, 1900, 607 (type concavum); 1902, 813, 833.—Pratt, 1902a, 888, 897 (key).

concavum (Crep., 1825) Fischder, 1903h, 548.

lingua (Crep., 1825) Fischder, 1903h, 548.

CRYPTOGONIMUS Osborn, 1903, 315-318 (m. chili); 1903, 533-534.—Marshall & Gilbert, 1905, 479.

chili Osborn, 1903, 315-318, fig. 2 (in *Micropterus dolomieu*; Chautauqua); 1903, 533-534; 1904, 308.—Marshall & Gilbert, 1905, 478.—Staff., 1905, 682 (in *Ambloplites rupestris* Raf.).

CRYPTOSTOMUM Nitzsch, 1819, sub Amphist.—See Nord., 1832a, 30, 50 (syn. Holost. cuticola); 1840, 561, 628.—Moul., 1856a, 15 (syn. of Hemist.).—[Not *Cryptostoma* Blainv., 1818, mollusk; *Cryptostoma* Latr., 1825, coleopteron; *Cryptostomus* Blainv., 1818, mollusk.]

CUCULANUS Mueller, 1777.—See Nematoda.

conoideus Bloch, 1782a, 35, pl. 10, figs. 5-7 (*Cuculanus*) (t. h. *Anas boschas dom.*; Europe).—Dies., 1850a, 383 (syn. of Dist. echinatum).—Herbst, 1787a, 42.—Looss, 1899b, 680.—Mueller, 1788b, 18.—Rail., 1886, 297 (to Dist.).—Rud., 1809a, 418, 420, 432.

CYATHOCOTYLE Mueh., 1896, v. 20, 590 (m. prussica) (*Holostomidæ*); 1897, v. 1, in 243-279, pl. 4; 1897, in 127-128; 1897, in 478-479.—Odh., 1902, 19.—Pratt, 1902a, 889, 908 (key).

fraterna Odhn., 1902, 19-21 (in *Harelda glacialis*).

prussica Mueh., 1896, 590; 1896, 270-278, figs. 7, 15-17 (in *Anas glacialis*); 1898, 4, 16, 80.—Braun, 1901, 259; 1902b, 154.—Odh., 1902, 19, 20.

CYATHOCOTYLINÆ Mueh., 1898b, 20, subf. of *Holostomidæ*, contains *Cyathocotyle*.—Pratt, 1902a, 889 (includes *Cyathocotyle*).

- CYCLATELLA Ben. & Hesse, 1863; 1864a, 65, 66, 81-83 (m. annelidicola) (Tristomidæ).—Ben., 1869a, 640, is a bryozoon, see Loxosoma.—Braun, 1890a, 518 (=Loxosoma).—Mont., 1888a, 86.—Tasch., 1879, 56.
- annelidicola* Mont., 1888a, 88, for annelidicola.
- annelidicola* Ben. & Hesse, 1863; 1864a, 82-83, pl. 7, figs. 12-13 (on ? Clymene).—Mont., 1888a, 88 (annelidicola).—Prouho, 1891, 91-116 (to Loxosoma).—Sons., 1895, 119.
- CYCLIDIUM Mueller, 1786.—Nitzsch, 1827, 69, contains Cerc. cyclidium [type by absolute tautonymy], C. discus.
- CYCLOBOTHRUM Cerf., 1895m, 141, 142, 144-145 (m. sessilis); 1896d, 548, 550-551.—Mont., 1903, 336 (subf. Diclidophorinæ).—St.-Remy, 1898, 552.—Zool. Anz., 1895, 327.
- sessilis* (Goto, 1894) Cerf., 1895m, 141, 142, 145 (in Chærops japonicus; Japan); 1896, 548, 551.—St.-Remy, 1898, 554 (=Diclidophora sessilis).
- sessile* (Goto, 1894), Zool. Anz., 1895, 327.
- CYCLOCIRRA Mueller, 1841, 147 (apparently m. thompsonii).
- thompsonii* Mueller, 1841, 147, based on Thompson, epizoon on Comatula.
- CYCLOCÆLEUM Fuhrmann, 1904, 61, misprint for Cyclocœlum.
- CYCLOCÆLINA Cohn, 1904, 232, misprint for Cyclocœlinæ.
- CYCLOCÆLINE Cohn, 1904, 231, 232 (contains Typhlocœlum=Typhlocœlum).—Stoss., 1902, 2, 3, 4, 7, 8, 9, 11, 12, 31, 34, 35.
- CYCLOCÆLIUM Fuhrmann, 1904, 59, for Cyclocœlum.
- mutabile* (Zed., 1800) Fuhrmann, 1904, 59, 61, to (Cyclocœlum).
- CYCLOCÆLUM Brand., 1892b, 507 (for Monost. mutabile, M. flavum, M. arcuatum, M. tringæ, M. ellipticum) [tld. mutabile].—Braun, 1901e, 346.—Cohn, 1904, 229, 231, 232 (in syn. of Monost. flavum).—Looss, 1899b, 659-661, 662; 1901b, 192 (type, Monost. mutabile); 1902m, 701, 702, 719, 720, 721, 729, 730, 780.—Luehe, 1901, 174 (type, Monost. mutabile); 1901, 481.—Pratt, 1902, 890, 909 (key).—Stoss., 1902, 5, 6, 7, 8, 12.
- 1902: Cyclocœlum Stoss., 1902, 40, misprint.
- 1904: Cyclocœlum Fuhrmann, 1904, 61, misprint.
- 1904: Cyclocœlium Fuhrmann, 1904, 59, misprint.
- adolphi* Stoss., 1902, 19-20, pl. 4, figs. 13, 14 (in Grus cinerea, Ardea cinerea; Siberia).
- arcuatum* (Brand., 1892) [Brand., 1892b, 507].—Stoss., 1902, 20-22, pl. 4, figs. 15, 16 (syn. Monost. mutabile Sieb.) (Anser dom., Bucephala clangula; Berlin).
- brasilianum* Stoss., 1902, 16-17, pl. 2, figs. 7, 8 (in Scolopax flaviceps; Brazil).
- exile* Stoss., 1902, 17-18, pl. 3, figs. 9, 10 (in Totanus ochropus).
- mutabile* (Zed., 1800) [Brand., 1892b, 507].—Stoss., 1902, 12, 13-14, pl. 1, figs. 1, 2 (syns. Monost. mutabile Zed., 1800; M. microstomum Crep., Cephalogoni-mus ovatus Stoss.) (type of genus) (in Gallinula chloropus, Fulica atra).—[Braun, 1901e, 346].—Cohn, 1904, 231, 232.—[Luehe, 1901 p, 174.]
- ovopunctatum* Stoss., 1902, 15-16, pl. 2, figs. 5, 6 (syn. Monost. mutabile Ben.) (in Numenius arquata).
- problematicum* Stoss., 1902, 14-15, pl. 1, figs. 3, 4. pl. 7, fig. 25. pl. 8, fig. 29 (syn. Cyclocœlum sp. Looss, 1899b, 660, in Totanus calidris; Egypt) (in Totanus calidris, T. glottis).
- robustum* Stoss., 1902, 18, pl. 3, figs. 11, 12 (syn. Monost. flavum Par., v. 11 (258) (in Fuligula cristata).
- CYCLOCOTYLA Otto, 1823, 300-302 (m. bellones).—Baer, 1826a, 126.—Ben. & Hesse, 1864, 47.—Blainv., 1828a, 570.—Braun, 1889a, 326.—Cobbold, 1877, 238.—Dies., 1840, 234; 1850a, 419 (syn. of Cyclocotylen).—Zæringer, 1829.
- 1823: Octostoma Otto, 1823, 302 (preoccupied), same as Cyclocotylen.
- 1823: Cyclostoma Otto, 1823, 302 (preoccupied), same as Cyclocotylen.
- bellones* Otto, 1823, 300, pl. 41, fig. 2, a-c (on Hornhecht=Belone acus; Naples).—Baer, —, 687, pl. 32, fig. 9.—Blainv., 1828a, 570.—Bl., 1847, 336.—Braun, 1889a, 326.—Dies., 1850a, 419, to Cyclocotylen.—Nord., 1832a, 78, 80; 1840, 600 (to Octobothrium).

CYCLOCOTYLA—Continued.

bellones Crep., 1839, 291, for *bellones*.—Kroyer, 1852–53a, 1221 (in *Belone rostrata* Fab.).

lanceolata Zæring, (1829), 21.—Braun, 1890a, 553 (on *Salmo fario*) (to *Octobothrium*).—Crep., 1839, 291.

CYCLOCOTYLE for *Cyclocotyla*.—Burm., 1837, 530.—Braun, 1890a, 515–518 (belongs to *Octobothrium* Leuck.).—Crep., 1838, 84.—Dies., 1850a, 289, 419 (of Otto, syn. of *Octobothrium* Nord.), 423 (of Schultze, syn. of *Discocotyle*); 1858e, 314, 372 (of Otto).—Gold., 1855a, 19.—Mont., 1888a, 83.—Tasch., 1879, 233, 239.—See *Cyclocotyla*.

bellones (Otto, 1823) Dies., 1850a, 419 (on *Belone acus*) (syns. *Cyclocotyla bellones*, *Octobothrium bellones*); 1858e, 372.—Tasch., 1879, 245 (to *Octobothrium*).

lanceolata Schulze in Zæring (1829).—Crep., 1839a, 291, note 25.—Dies., 1850a, 424 (syn. of *Discocotyle sagittata*).—Tasch., 1879, 244 (syn. of *Octobothrium sagittatum* Leuck.).

CYCLOGENA Hemp. & Ehrenb., 1828a (m. *Cerc. lupus*; Berlin), fam. Hydatinorum.

CYCLOSTOMA Otto, 1823, 302 (as syn. of *Cyclocotyla*) [not *Cyclostoma* Lam., 1801, mollusk; *Cyclostoma* Nilss., 1832, fish; *Cyclostoma* for *Ciclostoma* Scacchi, 1836, mollusk].

CYMATOCARPUS Looss, 1899b, Dec., 550, 551, 593–594 (tod. undulatus), 607, 611, 633; *τό κύμα*=wave, *ὁ καρπός*=fruit.—Braun, 1901b, 22.—Odhn., 1902, 38, 41, 42.—Pratt, 1902a, 889, 903 (key).—Staff., 1903, 828.

solearis (Braun, 1899) Braun, 1901b, 22, 23, fig. 8, or Looss, 1901l, Oct. 30, 563; 1902m, 508.

undulatus Looss, 1899b, 594, 711–712, figs. 32–34 (in *Thalassochelys undulatus*; Abukir, July); 1901l, 563; 1902m, 414, 508.—Braun, 1901a, 22, 23.—Heymann, 1905, 84.—Luehe, 1900, 561.

CYSTAGORA Staff., 1905, Apr. 11, 683 (m. *tetracystis*); *κύστις*, bladder; *ἀγορά*, assembly.

tetracystis (Gastaldi, 1854) Staff., 1905, 683 (in *Rana catesbiana*. R. *virescens*; Canada).

DACTYCOTYLE Ben. & Hesse, 1863; 1864a, 96, 110 (*pollachii* [type by present designation], *luscæ*); *δάκτυλος*, finger.—E. Ben., 1868a, 4–7; 1868, 22–36, 1 pl.—Braun, 1890a, 446.—Mont., 1888a, 8, 11, 16, 52, 59, 66, 86, 89, 99; 1903, Dec., 336 (syn. *Pterocotyle*) (in subf. *Octocotylinæ*; f. *Octocotylidæ*).—Par., 1894, 135 (syn. of *Dactylocotyle* Par. & Perugia).—Par. & Perugia, 1890, 4, 7; 1890, 10.—Tasch., 1879, 59, 73; 1879, 240.

1873: *Dactylocotyle* Marshall, 1873, 430.

1889: *Dactylocotyle* Braun, 1889a, 364, misprint.

lusca Ben., 1868a, 7 (in *Morrhua lusca*) (for *luscæ*).

luscæ Ben. & Hesse, 1864, 111–112 (in *Morrhua lusca*).—Ben., 1868, 36.—Braun, 1889a, 364 (on M. l.); 1890a, 535, to *Octobothrium* (*Dactylocotyle*).—Tasch., 1879, 247, to *Octobothrium*.

phycidis (Par. & Perugia, 1889), Par. & Perugia, 1890, 4; 1890, 7.—Braun, 1890a, 535, to *Octobothrium* (*Dactylocotyle*).

pollachii Mont., 1888, 66 (for *pollachii*).

pollachii Ben. & Hesse, 1863; 1864, 110–111, pl. 11, figs. 23–30 (in *Merlangus pollachius*).—Ben., 1868a, 7; 1868, 36, 1 pl.—Braun, 1889a, 364 (on *Mer. pol.*); 1890a, 535, to *Octobothrium* (*Dactylocotyle*).—Mont., 1888, 66 (*pollachii*).—Par. & Perugia, 1890, 4.—Scott, 1901, —, pl. 8; 1905, 117.—Tasch., 1879, 242, 246 (to *Octobothrium*).—Can best be taken as type of genus.

DACTYLOCEPHALA Mont., 1899, 115, 116, 117, 120, 121 (type *Temnocephala madagascariensis*).—Pratt, 1900, 646, 647 (*Temnocephalidæ*, *Temnocephalinæ*).

madagascariensis (Vayssière, 1892) Mont., 1899, 121 (in *Astacoides madagascariensis*; Madagascar).

DACTYLOCOTYLE Marschall, 1873. 430. 795. and 796, apparently for *Dactycotyle*. Ben. & Hesse, 1863.—Braun, 1890a. 469. 471. 477. 484. 490. 498. 516. 517. 522. 535 (syn. or subg. of *Octobothrium*). 546.—Cerf., 1895h. 913-946, pls. 1-2, figs. 1-20; 1895i. 831-834; 1895k. 634; 1895m. 125. 126. 137. 138. 139; 1896c. 232-233; 1896. 510-535. 536. 545. 546. 547; 1898a. 301. 302. 305-315. 322-323; 1899a. 345. 370. 383. 411.—Lint., 1905. 333. 352. fig. 151 (sp. on *Brevortia tyrannus*).—Par., 1894. 135 (syn. *Dactycotyle* Ben. & Hesse).—Pratt, 1900a. 646 (*Polystomidae*, *Octocotylinæ*) 652 (on gills of fish, esp. *Gadidae*). 656. 660. fig. 35.—St.-Remy, 1898. 523. 545. 548.—Scott, 1901. 150. 150. Scudder, 1884 (1882), part 2, 91 [gives date as "1883 [1862]" and quotes Marschall, which is 1873].—Stoss., 1898. 12.

carbonarii Cerf., 1895h. 929. 931. pl. 1, figs. 1. 5. 9. 10. 11, pl. 2, figs. 12-20.

denticulatum (Olss., 1876) Cerf., 1895h. 922. 923-938. 941. 943. type of genus^a (in *Gadus carbonarius*); 1896. 517. 518-530. 532-533. 534. pl. 23, figs. 1. 5. 9. 10. 11. pl. 24, figs. 12-20; 1898a. 301. 305^a. 307. 312. 313. 317. 318. 323. 325. pl. 12, figs. 6-9 (in *Gadus carbonarius* (Linn.)).—Lint., 1901. 408. 414 (in *Pollachius virens*). 474.—Par., 1899. 4.—Pratt, 1900a. 656. fig. 35. 657. 660 (key).—St.-Remy, 1898. 548-549. 550 (in *Gadus virens*, *G. carbonarius*).—Staff., 1904. May 3. 482 (gills of *Pollachius virens* [virens] L.; Canada).

lusca (Ben. & Hesse, 1863) Tasch., 1879. 247 (to *Octobothrium*).—Braun, 1890a. 535 (as *Octobothrium* (*Dactycotyle*) *lusca*, on *Morrhua lusca*).—Cerf., 1895h. 922; 1896. 517; 1898a. 302. 307. 312. 315-322. 326. pl. 12, figs. 1-5 (in *Morrhua lusca*; 1899a. 372.—Par., 1899. 4 (to *Octobothrium*) (on *Gadus minutus*; *Portoferraio*).—St.-Remy, 1898. 551.

merlangi (Kuhn, 1830) Cerf., 1895h. 922. 939. 942-943. pl. 1, figs. 4. 8 (in *Gadus merlangus*); 1896. 517. 531. 534. pl. 23, figs. 4. 8; 1898a. 301. 304. 310. 312. 324-325. pl. 12, figs. 12. 13 (in *Gadus merlangus* L.); 1899a. 370.—St.-Remy, 1898. 550. 556.

minor St.-Remy, 1898. 551=*Octobothrium minus* Olss., 1876.

molva Cerf., 1895h. [944]. pl. 1, figs. 3. 7; 1896. pl. 23, figs. 3. 7.

morrhua (Ben. & Hesse, 1863) St.-Remy, 1898. 551 (= *Pterocotyle morrhua*).

palmatum (Leuck., 1830) Cerf., 1895h. 922. 939-940. 943-944 (in *Gadus molva*); 1896. 517. 531. 534-535; 1898a. 302. 312. 325-326 (in *G. mol. L.*); 1899a. 370.—St.-Remy, 1898. 550-551 (syn. *Octodactylus inhaerens* Dalyell).—Scott, 1897. Apr., 127 (in the Moray Firth).

phycidis Par. & Perugia, 1889. 743-744. fig. 5 (in *Phycis blennoides*; Genova); 1890. 743-744. fig. 5.—Braun, 1890a. 535 to (*Octobothrium* (*Dactycotyle*) on *Phycis blennoides* [blennoides]).—Cerf., 1895h. 922; 1896. 517; 1898a. 302.—Par., 1894. 135-136 (in *Phycis blennoides*; Genova).—St.-Remy, 1898. 551.—Staff., 1904. May 3. 482 (gills of *Phycis chuss* Walb.; Canada).

pollachii (Ben. & Hesse, 1863) Braun, 1883a. 50; 1890a. 472. 476. 492. 498. 535. to *Octobothrium* (*Dactycotyle*), on *Merlangus pollachius*.—Cerf., 1895h. 914-915. 921. 922. 938. 941-942. pl. 1, figs. 2. 6 (in *Gadus pollachius*); 1896. 211. 516. 517. 530. 533-534. pl. 23, figs. 2. 6; 1898a. 301. 311. 312. 317. 318. 319. 321. 324 (in *G. p.*).—St.-Remy, 1898. 549-550. 551.—Scott, 1901. 150. pl. 8, figs. 28. 29; 1901. 343 (in *G. p.*; Irish Sea).

squillarum (Par. & Perugia, 1889) Stoss., 1898. 12-13 (on *Bopyrus squillarum*; Trieste).

taschenbergi Par., 1894. 704 (for *taschenbergii*).

taschenbergii (Par. & Perugia, 1889) Par., 1894. 136. to (*Choricotyle*) (in *Sargus rondeletii*; Genova).—Cerf., 1895h. 922. 923; 1896. 517.

DACTYLODA Mont., 1905. 25. Mai. 403 (order for *Temnocephalidae*).

DACTYLODISCUS Olss., 1893. 7-8 (*m. borealis*).—Mont., 1903. 336 (syn. of *Tetraonchus*); 1905. 79-80.—Pratt, 1900a. 646. 554 (key). 657. fig. 48.—St.-Remy, 1898. 524. 564. 567.

borealis Olss., 1893. 7-8. pl. 1, figs. 7-10 (on *Thymallus vulgaris*, in lacubus Jemtlandiæ Sällsjön, Näliden, Ockesjön et in flumine ad Mörsil: *Coregonus lavaretus*, in lacu Ockesjön).—Mont., 1905. 79.—St.-Remy, 1898. 568. fig. 6 (in *Coregonus lavaretus*).—Pratt, 1900a. 657. fig. 48.

^a "Dans la description, le *Dactycotyle denticulatum* avait été pris comme type, parce que c'est dans cette forme que les organes de fixation caractéristiques du genre, présentaient la plus grande complication."—Cerf., 1898. p. 705.

It is impossible to take this species as type. See International Code, Art. 30.

- DACYLOGYRUS** Dies., 1850a, 290, 433, 650, 651-652 (n. *auriculatus*); 1858e, 374, 375; 1859c, 440.—Ben., 1858a, 1861a, 63.—Ben. & Hesse, 1864, 121.—Brand., 1894a, 309.—Braun, 1890a, 412, 413, 417, 426, 434, 438, 444, 445, 452, 458, 465, 468, 478, 479, 486, 497, 499, 503, 512, 515, 517, 523, 542, 543; 1893a, 890.—Carus, 1863, 478.—Cobbold, 1879, 41, 42.—Fraip., 1880c, 418.—Gamb., 1896a, 73.—Goldb., 1855a, 20.—Goto, 1891a, 161, 166, 183, 185; 1893a, 798, 801, fig. 3.—Haswell, 1892b, 150; 1893e, 114.—Hoyle, 1890, 539 (about 20 species, on fishes).—Jackson, 1888, 654.—Kath., 1894a, 128, 133, 144, 155, 156, 157.—Leuck., 1886d, 45, 48.—Maclaren, 1904b, 574, 598, 599, 600.—Mont., 1888a, 10, 14, 40, 84, 86, 101, 107; 1889, 114; 1891, 109, 111; 1892, Oct. 7, 186, 213 (gen. of Gyrodactylinae); 1903, 336 (of subf. Gyrodactylinae).—Olss., 1893, 7.—Pratt, 1900a, 646, 654 (key), 657, fig. 44.—St.-Remy, 1898, 524, 566.—Stoss., 1898, 18.—Tasch., 1879, 69; 1879, 260 (syn. of Gyrodactylus Nord.), 261, 263 (of Wagener, syn. of Tetraonchus Dies.), 265 (of Wagener, syn. of Calceost. Ben.).—Wagener, 1857, 28, 29, 50, 54-55, 57-76.
- æquans* Wagener, 1857, 99, pl. 15, fig. 14 (in *Labrax lupus*); —, 84.—Ben. & Hesse, 1864, 121, 122 (to *Diplectanum*).—Dies., 1858e, 381 (to *Diplectanum*).—Tasch., 1879, 264 (to *Diplectanum*).
- alatus* Linst., 1878, 227, fig. 10 (on *Blicca bjærkna*; Europe); 1889a, 91 (in *Bl. bj.*, *Alburnus lucidus*).—Braun, 1890a, 544, 549, 550.
- amphibothrium* Wagener, 1857, 57, 58, 60, 66, 70, pl. 11, figs. 3, 4, pl. 12, figs. 1-4, pl. 15, fig. 11 (in *Acerina cernua*).—Braun, 1890a, 544, 549, 550.—Dies., 1858e, 377.—Linst., 1873, 99; 1878, 229-230, fig. 15.—Tasch., 1879, 262 (in *Acerina cernua*).
- anchoratus* (Duj., 1845) Wagener, 1857, 49, 52, 55, 62, 99, pl. 15, fig. 8.—Dies., 1858e, 376.—Kath., 1894a, 156.—Reported for *Carassius auratus*, *Cyprinus carpio*.
- auriculatus* (Nord., 1832) Dies., 1850a, 433, 651-652; 1858e, 375-376; 1859c, 440.—Ben., 1858a, 1861a, 66 (to *Gyrodactylus*).—Braun, 1890a, 419, 544, 549, 550, 551.—Kath., 1894a, 156.—Kroyer, 1852-53a, 1223, 1225, 1226 (in *Abramis brama* L.; *Phoxinus phoxinus* L.).—Par. & Perugia, 1890, 9.—Pratt, 1900a, 657, fig. 44.—Tasch., 1879, 261 (syns. *Gyrodactylus auric.* Nord.; *G. anchoratus* Duj.) (in *Abramis brama*, *Cyprinus carpio*, *Phoxinus phoxinus*).—Wagener, 1857, 76.
- benedeni* St.-Remy, 1898, 566, 567 for *Dactylogyrus vanbenedeni* Par. & Perugia.
- calceostoma* Wagener, 1857, 99 (in *Sciæna aquila*).—Dies., 1858e, 379 (in *Sc. aq.*); 1859c, 441 (syn. of *Calceost. elegans* Ben., type of *Calceostomum*).—Tasch., 1879, 265 (syn. of *Calceost. elegans* Ben.) (of Ben.).
- cochlea* (Wedl, 1857) Braun, 1890a, 408, 417.
- cornu* Linst., 1878, 228-229, fig. 13 (on *Abramis vimba*).—Braun, 1890a, 544, 549, 550 (on *Ab. v.*; Middle Europe).
- crassiusculus* (Wedl, 1857) Braun, 1890a, 417, 435.
- cruciatus* (Wedl, 1857) Braun, 1890a, 417.
- crucifer* Wagener, 1857, 55, 60, 63, 73, pl. 14, fig. 3 (in *Cyprinus erythrophthalmus*).—Braun, 1890a, 544, 549, 551.—Dies., 1858e, 377-378.—Tasch., 1879, 262 (in *Leuciscus erythrophthalmus*).
- difformis* Wagener, 1857, 63, pl. 15, fig. 6 (in *Cyprinus erythrophthalmus*).—Braun, 1890a, 544, 549, 551.—Dies., 1858e, 378 (in *Leuciscus erythrophthalmus*).—Tasch., 1879, 262 (in *L. ery.*).—Also reported for *Scardinius erythrophthalmus*.
- dujardinianus* (Dies., 1850) Dies., 1858e, 376 (in *Cyprinus carpio*, *Leuciscus rutilus*); 1859c, 440 (syn. *Gyrodactylus auriculatus* Ben.?).—Braun, 1890a, 544, 549, 550, 551.—Kath., 1894a, 156.—Linst., 1877, 182-183.—Olss., 1893, 7.—St.-Remy, 1898, 566-567.—Tasch., 1879, 261 (syn. *Gyrodactylus auric.* Nord. of Duj., 1845a) (in *Cypr. carp.*, *Leuc. rut.*, *Abramis brama*).—Also reported for *Cypr. gibelio*, *Leuc. idus*, *L. prasinus*.
- echeneis* Wagener, 1857, 99, pl. 15, fig. 13 (in *Chrysophrys aurata*).—Braun, 1890a, 544, 549 (Genua), 550.—Dies., 1858e, 379 (in *Chrys. aur.*).—Par. & Perugia, 1889, 746 (in *Chrys. aur.* Wagener); 1890, 746.—Tasch., 1879, 263 (in *Chrys. aur.*).
- falcatus* (Wedl, 1857) Dies., 1858e, 377 (in *Cyprinus sp.*).—Braun, 1890a, 417, 544, 549.—Tasch., 1879, 261-262 (syn. *Gyrodactylus falcatus* Wedl).

DACTYLOGYRUS—Continued.

- fallax* Wagener, 1857, 55, 70, pl. 11, figs. 1, 2, pl. 15, fig. 7 (in *Cyprinus erythrophthalmus*, *C. rutilus*).—Braun, 1890a, 544, 549, 551.—Dies., 1858e, 376–377.—Tasch., 1879, 261 (in *Leuciscus rutilus*, *L. erythrophthalmus*).—Also reported for *Leuc. idus*, *L. prasinus*, *Scardinius erythrophthalmus*.
- forceps* Leuck. (1857), 26 (in *Chondrostoma nasus*): 1858a, 118 (in *Cyprinus nasus*, *C. dobula*).—Linst., 1878a, 254 (in *Squalius cephalus*), 257 (in *Chond. nasus*).
- gracilis* Wedl. 1861, 480, pl. 3, figs. 41–42 (on *Hydrocyon dentex*).—Braun, 1889a, 362.
- maior* Tasch., 1879, 263 (in *Gobio fluviatilis*) (for major).
- major* Wagener, 1857, 99, “pl. 15, fig. 9” (in *Gobius fluviatilis*).—Braun, 1890a, 544, 549, 550.—Dies., 1858e, 379 (in *Gobio fluviatilis*).—Tasch., 1879, 263 (maior) (in *Gobio fluviatilis*).
- malleus* Linst., 1877, 182, pl. 12, figs. 12–13 (in *Barbus fluviatilis*).—Braun, 1890a, 544, 549, 550.—Sramek, 1901, 95, 110, fig. 64 (in *Barb. fluv.*).
- megastoma* [also *megastomum*] Wagener, 1857, 57, 62, 67, 99, pl. 14, fig. 5, pl. 36A, fig. 2 (in *Cyprinus blicca*, *C. amarus*).—Braun, 1890a, 544, 549, 551.—Dies., 1858e, 378 (in *Rhodeus* (*Cyprinus*) *amarus*).—Tasch., 1879, 262 (in *Rhod. am.*).
- megastomum*, see *megastoma*.
- minor* Wagener, 1857, 60, 63, pl. 14, fig. 4 (in *Cyprinus alburnus*).—Braun, 1890a, 544, 549, 550.—Dies., 1858e, 378 (in *Aspius alburnus*).—Linst., 1878, 227–228, fig. 11.—Tasch., 1879, 262 (in *Aspius alburnus*).—Also reported for *Alburnus lucidus*, *Blicca björkna*.
- mollis* (Wedl. 1857) Dies., 1858e, 378–379 (in *Cyprinus carpio*).—Braun, 1890a, 544, 549, 550.—Linst., 1885, 252, pl. 15, fig. 29.—Mont. 1888, 90.—Tasch., 1879, 262 (syn. *Gyrodactylus mollis* Wedl.) (in *Cyprinus carpio*).
- monenteron* Wagener, 1857, 52, 55, 56, 58, 61, 63, 64, 65, 66, 67, 69, 70, 71, 72, 73, 76, pl. 13, fig. 1, pl. 36A, fig. 3f (in *Esox lucius*).—Braun, 1890a, 424, 452, 486.—Dies., 1858e, 380 (to *Tetraonchus*).—Olss., 1893, 7.
- paradoxus* (Crep., 1839a) Linst., 1878a, 210 (in *Lucioperca sandra*).
- pedatus* Wagener, 1857, 99, pl. 15, fig. 12, pl. 36A, fig. 3 (in *Julis*).—Ben. & Hesse, 1864, 121.—Dies., 1858e, 382 (to *Diplectanum*).—Tasch., 1879, 264 (to *Diplec.*).
- siluri* Wagener, 1857, see Braun, 1890a, 544, 549, 552 (in *Silurus glanis*; middle Europe).
- siluri glanidis* Wagener, 1857, see Dies., 1858e, 379 (in *Silurus glanis*).
- species Olsson (in *Coregonus lavaretus*).
- species Sramek, 1901, 95 (in *Blicca björkna* L.).
- species Sramek, 1901, 95 (in *Carassius vulgaris* L.).
- species Sramek, 1901, 95 (in *Idus melanotus* L.).
- species Sramek, 1901, 96 (in *Scardinius erythrophthalmus* Bonap.).
- sphyra* Braun, 1890a, 544, 549, 550, for *sphyrna*.
- sphyrna* Linst., 1878, 229, fig. 14 (in *Abramis vimba*).—Braun, 1890a, 544 (*sphyra*), 549 (middle Europe), 550.
- tenuis* (Wedl. 1857) Dies., 1858e, 379 (in *Perca fluviatilis*).—Braun, 1890a, 417, 544, 549, 551.—Tasch., 1879, 262–263 (syn. *Gyrodactylus tenuis* Wedl.) (in *Perca fluviatilis*).
- trigonostoma* Wagener, 1857, 99, “pl. 15, fig. 10” (in *Cyprinus rutilus*).—Braun, 1890a, 544, 549, 551.—Dies., 1858e, 379 (in *Leuciscus rutilus*).—Tasch., 1879, 263 (in *Silurus glanis*).—Also reported for *Leuc. idus*, *L. prasinus*.
- tuba* Linst., 1878, 228, fig. 12 (in *Squalius leuciscus*).
- uncinatus* Wagener, 1857, pl. 13, fig. 2 (in *Perca fluviatilis*).
- unguiculatus* Wagener, 1857, 61, 62, 64, 65.—Dies., 1858e, 381 (to *Tetraonchus*).—Tasch., 1879, 263 (to *Tetraonchus*).
- van benedeni* St.-Remy, 1898, 567 (syn. of *Tetraonchus benedeni*), for *van benedenii*.
- van benedenii* Par. & Perugia, 1895, 2 (in *Mugil auratus*; Triest. Dec.), see also *benedenii*.

DECACOTYLUS Mayer, 1841a, 24, *D. lanceolatus alosæ*.

lanceolatus alosæ Mayer, 1841a, 24, *Octobothrium lanceolatum* renamed.

DENDROCÆLI Burm.—Braun, 1890a, 515.—Mont., 1888a, 83.—Tasch., 1879, 233 (contained f. *Malacobothrii* for *Diplost.*, *Cerc.*, *Dist.*, *Amphist.*, *Holost.*,

DENDROCELI—Continued.

Polyst., Monost., Caryophyllaeus, and f. Plectobothrii for Aspidogaster, Trist., Octobothrium, Diplozoon, Hectocotyle, Cyclocotyle, Nitzschia, Axine).

DERMOCYSTIS Staff., 1905, Apr. 11, 682 (m. ctenolabri); δέρμα, skin; κύστις bladder.

ctenolabri Staff., 1905, Apr. 11, 682 (gills and skin of *Ctenolabrus adspersus* Walb.) includes Linton, 1899, 281, 296, pl. 40, figs. 76–81.

DEROGENES Luehe, 1900w, 507–509 (m. ruber); 1901n, 395, 396, 476, 478–479, 480, 481, 484 (Hemiuridae).—Looss, 1901, 206; 1901, 438; 1901, 658; 1902, 839.—Odh., 1905, 363, 364, 365, 366.—Pratt, 1902a, 889, 905 (key).—Stoss, 1902, 582.

affinis (Rud., 1819) Luehe, 1901n, 479 (in *Scorpaena cirrosa*).—Odh., 1905, 364.

cacozelus Nicoll, 1907, 72, 90–91, pl. 3, fig. 10 (in *Pleuronectes limanda*, *Hippoglossus vulgaris*).

minor Looss, 1901d, 437–439, fig. 5 (in *Labrus merula*; Triest).—Johnstone, 1907, 191–192.—Luehe, 1901n, 479.—Odh., 1905, 361, 364.

plenus Staff., 1904, May 3, 484 (in *Anarrhichas lupus*; Canada); 1905, Apr. 11, 682.

ruber Luehe, 1900, 507–509 (in gall bladder of *Trigla lineata*); 1901, 396, 479, 483.—Looss, 1901, 437, 438, 439.—Odh., 1905, 362, 363, 364.

urocotyle (Par., 1899) Odh., 1905, 364.

varicus (Mueller, 1784) Looss, 1901d, 438, 439.—Johnstone, 1907, 188–192, fig. 18 (in *G. merl.*; Cumberland).—Luehe, 1901, 479.—Nicoll, 1907, 68, 70, 71, 72, 90, 91 (in *Cottus bubalis*, *C. scorpius*, *Gadus merlangus*, *Hippoglossus vulgaris*, *Pleuronectes limanda*, *Rhombus laevis*, *R. maximus*).—Odh., 1905, 360–364, 365, pl. 4, figs. 6–7 (syns. *Fasc. varica* Mueller, *Dist. dimidiatum*).—Staff., 1904, May 3, 483 (in *Salmo salar*, *Gadus callarias*, *Melanogrammus aeglefinus*, *Pollachius virens*, *Clupea harengus*, *Osmerus mordax*, *Sebastes marinus*, *Anguilla anguilla*, *Cryptacanthodes maculatus*, *Acanthocottus scorpius*, *Hemitripteris americanus*, *Lophius piscatorius*, *Hippoglossus hippoglossus*, *Limanda ferruginea*, *Platysomatichthys hippoglossoides*, *Hippoglossoides platessoides*; Canada), 484; 1905, Apr. 11, 682 (abundant in copepods, *Acartia*, Aug.).

DEROPRISTIS Odh., 1902, 154–156 (tod. hispida).—Pratt, 1902a, 888, 896 (key).

hispida (Abildg., 1819) Odh., 1902, 155, 156, 159.—Staff., 1904, May 3, 492 (*hispidus*, int. *Acipenser rubicundus*), 493.

inflata (Mol., 1859) Odh., 1902, 157–160, figs. 1–2 (in *Anguilla vulgaris*; Triest).—Staff., 1904, May 3, 485 (int. *A. anguilla*; Canada).

DEUTEROBARIDINE Looss, 1902m, 699.

DEUTEROBARIS Looss, 1900, Dec. 3, 602=Baris Looss, 1899 [not Germ., 1817] renamed, hence type proteus; 1902, 546, 634, 635, 639, 646, 647, 648, 659, 660, 664, 669, 674, 675, 682, 684, 693–694, 695, 698, 699.—Pratt, 1902, 890, 909 (key).

proteus (Brandes, 1891) Looss, 1902, 416, 633, 694, pl. 31, figs. 151–168 (in first, widened, portion of large intestine of *Chelone mydas*).

DIAPHOROCOTYLINAE Mont., 1903, 336 (f. Octocotylidae).

DICLIBOTHRIUM Leuck., 1836a, 764, see Dicybothrium.

DICLIDOPHORA Dies., 1850a, 289, 417–418 (*longicollis* and *palmata*), 425; 1858e, 315, 383–384.—Braun, 1890a, 518.—Burm., 1856a, 251.—Cerf., 1895h, 920; 1895m, 130, 134, 137, 139, 140, 141, 142–143; 1896, 516, 540, 542, 545, 546, 547, 548, 549–550.—Gamb., 1896a, 73.—Goldb., 1855a, 19.—Johnston, 1865a, 31.—Mont., 1903, 336 (syn. *Choricotyle*) (subf. *Diclidophorinae*).—Pratt, 1900a, 646, 652 (key), 656, 660, fig. 36.—St.-Remy, 1898, 523, 545, 551–552.—Tasch., 1879, 239.

affinis (Lint., 1898) Lint., 1901, 408, 414, 482 (in *Paralichthys dentatus*).—Pratt, 1900a, 656, fig. 36, 657, 660 (key).

chrysophri St.-Remy, 1898, 555, for *chrysophryi*.

chrysophryi (Ben. & Hesse, 1863) ———, 1895.

elongata Goto, 1894a, 210–212 (in *Pagrus tumifrons*, sometimes on *Cymothoa*; Mogi and Hakodate, Japan).—Cerf., 1895m, 126, 142, 144 (in *Pag. tum.*; Japan); 1896, 536, 547, 548, 550; 1898a, 303.—St.-Remy, 1898, 553.

DICLIDOPHORA—Continued.

- labracis* Cerf., 1895m, 126–142, 143, pl. 3, figs. 1–15 (in *Labrax lupus*; White Bank, N. Sea); 1896, 535–537, 539, 540, 548, 550, pl. 25; 1896, 230–232; 1898b, 338; 1899a, 371, 412.—Ben., 1895, 20–21.—Braun, 1896a, 1346.—St.-Remy, 1898, 554–555.
- longicollis* Dies., 1850a, 417 (Octost. merlangi Kuhn, 1830, renamed) (in *Merlangus communis*); 1858e, 384; 1859c, 443 (to Octoplectanum).—Ben., 1858a, 1861a, 44, 49 (syn. of Octobothrium merlangi.—Cerf., 1895h, 915 (syn. of Octob. merl.); 1895m, 139; 1896, 512, 547.—Tasch., 1879, 245 (syn. of Octob. merl. Kuhn).
- merlangi* (Kuhn, 1829) Kroyer, 1838–40a, 606 (in *Merlangus vulgaris* L.).
- palmata* (Leuck., 1830) Dies., 1850a, 417–418 (includes Octobothrium digitatum Rathke); 1858e, 384; 1859c, 443 (to Octoplectanum).—Cerf., 1895f, 20–21; 1895h, 917 (to Octobothrium); 1895m, 139; 1896, 513, 547.—Johnston, 1865a, 31.—Kroyer, 1838–40a, 608, 611 (in *Lota molva* L., *Hippoglossus maximus* Mind).—Tasch., 1879, 246 (to Octobothrium).
- sessilis* Goto, 1894a, 212–213 (in *Chærops japonicus*; Mitsugahama, Japan).—Cerf., 1895m, 126, 140 (in Ch. jap.); 1896, 536, 547.—St.-Remy, 1898, 553–554.
- smaris* (Ijima, 1894) Goto, 1894a, 207–210, fig. 1 (syn. Octobothrium smarisi); on Smaris vulgaris, on caudal segment of a Cymothoa; Gulf of Naples).—Cerf., 1895m, 126, 140, 142, 143–144 (in Cymothoa sp. in buccal cavity of Smaris vulgaris; Gulf of Naples); 1896, 536, 547, 548, 550; 1898a, 303 (in Cymothoa on Sm. vul.).—St.-Remy, 1898, 552–553, 556.
- sp. Lint., 1905, 333, 380 (in *Orthopristis chrysoterus*; Beaufort, N. C.).
- taschenbergi* Par. & Perugia, 1892, 95, pl. 2, fig. 4, pl. 3, figs. 13–14, teste St.-Remy, 1898, 555.
- tetrodonis* Goto, 1894a, 213–215, pl. 10, figs. 1–4 (in *Tetrodon* sp.; Hagi, Japan).—Cerf., 1895m, 126, 140 (in *Tetrodon* sp.); 1896, 536, 547.—St.-Remy, 1898, 554.
- DICLIDOPHORINE Cerf., 1895f, 20–21; 1895m, 132, 142; 1896, 535–552; 1898a, 303; 1899a, 345, 370.—Mont., 1903, 336 (f. Octocotyliidae).—St.-Remy, 1898, 552.
- DICLYBOTHRIUM F. S. Leuck., 1835a, 88 (m. armatum); 1836a, 764 (Diclibothrium).—Ben. & Hesse, 1864, 84.—Braun, 1890a, 518.—Burm., 1856a, 251.—Crep., 1839, 292.—Dies., 1850a, 289, 421, 425; 1858e, 315, 383 (armatum); 1859c, 443.—Goldb., 1855a, 19.—Tasch., 1879, 254, 255 (syn. of Diplobothrium Leuck.).
- 1836: Diclibothrium Leuck., 1836a, 764.
- 1836: Diklibothrium Leuck., in Kollar, 1836, 81.
- 1842: Diplobothrium Leuck., 1842a, 18 (armatum).
- armatum* Leuck., 1835a, 88 (in *Acipenser rostratus*); 1836a, 764; 1836, 219.—Braun, 1889a, 332.—Crep., 1839, 292.—Dies., 1850a, 421 (includes D. crassicaudatum Leuck., *Hexacotyle elegans* Nord., *Diplobothrium armatum* Leuck., *Polyst. armatum* Duj.); 1858e, 383.—Staff., 1904, May 3, 488 (to Diplobothrium; on gills of *Acipenser rubicundus*).—Tasch., 1879, 254 (to Diplobothrium).
- crassicaudatum* Leuck., in Kollar, 1836, 81 (Diklibothrium) (in *Acipenser stellatus*).—Crep., 1839a, 292.—Dies., 1850a, 421 (syn. of Diclib. armatum).—Tasch., 1879, 254 (syn. of Diplobothrium armatum Leuck.).
- DICOTYLE—Stiles, 1898a, 59 (quoted from Sonsino; a larval trematode).
- DICOTYLID.E Mont., 1903, 336 (subf. Dicotylinæ, g. Sphyrnura).
- DICOTYLIN.E Mont., 1903, 336 (g. Sphyrnura).
- DICRANOCÆLA Dies., 1850a, 286, 288, 293 (as tribe: “*Tractus intestinalis bifurcatus*”), 408.—Braun, 1893a, 892.—Goldb., 1855a, 15, 17.—Mont. 1888a, 83; 1892, Oct. 7, 196.
- DICRANOCÆLI Burm., 1837, 528.—Braun, 1890a, 515.—Mont., 1888a, 83.—Tasch., 1879, 233.
- DICRANOCÆLIA Dies., 1850a, 408 (subtribe I of Polycotylea, tribus III).
- DICRANOPHORUS Nitzsch, 1827, 68 (contains Cerc. catellina, C. lupus, C. vermicularis, C. forcipata, ? C. catellus).
- (DICROCELIUM) Stiles & Hass., 1894e, 413, misprint for (Dicrocoelium).
- DICROCELIIN.E Looss, 1899b, Dec., 635; 1902, 839.—Hollack, Johanne, 1902a, 867–869 (amphitypie); 1903a, 536; 1905, July, 53–54.—Odhn., 1902, 40.—Pratt, 1902a, 889, 904 (key), includes Dicrocoelium, Lyperosomum, Athesmia, related genera Eumegacetes, Anchitrema.—Ward, 1903, 863.

- (**DICROCÆLIUM**) Duj., 1845a, 391-401 (tld. lanceolatum = lanceatum), subg. of Dist. See Dicrocœlium.
- albicollis* (Rud., 1819) Duj., 1845a, 387, 393 (as variety of D. (D.) attenuatum; in Falco pennatus). See Dicrocœlium.
- albidum* Braun, 1893e, 353.
- arrectum* (Duj., 1845) Stoss., 1895, 225-226, 236.
- ascidia* (Ben., 1873) Stoss., 1892, 21, 39, 40.
- assula* Duj., 1845a, 387, 398 (in Coluber natrix; Toulouse).
- atomon* (Rud., 1802) Stoss., 1886, 57.
- attenuatum* Duj., 1845a, 387, 392-393 (in Turdus merula; Rennes) [not attenuatum Rud., 1814]. See Dicrocœlium.
- bacillare* (Mol., 1859) Stoss., 1886, 58.—Looss, 1899b, 571 (as described by Stoss., would belong to Creadiinae, possibly to Creadium).
- boscii* (Cobbold, 1859) Stoss., 1895, 226.
- buski* (Lankester, 1857) Rail., 1893a, 363-364, fig. 243. See Dicrocœlium.
- calceolus* (Mol., 1858) Stoss., 1886, 63.
- chilostomum* (Mehlis, 1831) Stoss., 1892, 20-21, 39, 40.
- choledochum* (Linst., 1883) Stoss., 1892, 161.
- clathratum* (Deslongchamps, 1824) Duj., 1845a, 393-394 (as var. of D. (D.) attenuatum). See Dicrocœlium.
- clavigerum* (Rud., 1819) Stoss., 1889, 64-65.
- cœlomaticum* (Giard & Billet, 1892) Rail., 1893a, 360. See Dicrocœlium.
- commune* (Olss., 1867) Stoss., 1886, 58.
- complanatum* (Rud., 1814) Duj., 1845a, 399-400 (believes it identical with D. (D.) hians).
- complexum* Stiles & Hass., 1894e, June, 425-426, pl. 1, figs. 1-3 (in Felis catus dom.; U. S. A.), 1894.
- concaum* (Crep., 1825) Stoss., 1892, 158-159, 188, 189.
- conus* (Crep., 1825) Stoss., 1892, 24-25, 39, 40.—Stiles & Hass., 1896a, 156 (to Opisthorchis).
- crassicolle* (Rud., 1809) Stoss., 1889, 63-64.
- crassum* (Sieb., 1836) Stoss., 1892, 156-157, 192.
- cygnoides* (Zed., 1800) Duj., 1845a, 396-397.—Stoss., 1898, 31 (to Pleorchis).
- cylindraceum* (Zed., 1800) Duj., 1845a, 386, 395-396.—E. Bl., 1847, 295 (to Brachylæmus).—Looss, 1899b, 600 (type of Haplometra).
- dendriticum* (Rud., 1819) —, 1896. See Dicrocœlium.
- endolobum* Duj., 1845a, 386, 397 (in "Grenouilles vertes et rousses, et de la Salamandre;" Rennes).—Looss, 1899b, 589 (type of Opisthioglyphe).
- ercolanii* (Mont., 1893) Stoss., 1895, 223-224, 234.—Looss, 1899b, 567 (probably identical with Telorchis linstowii).
- erinaceum* (Poir., 1886) Stoss., 1892, 22, 37.—Looss, 1899b, 570 (probably an Astia).
- eurystomum* (Linst., 1877) Stoss., 1892, 159-160, 189.
- felineum* (Rivolta, 1884) Rail., 1893a, 361. See Dicrocœlium.
- fasciatum* (Rud., 1819) Stoss., 1886, 59.—Barbagallo & Drago, 1903, 410 (in Crenilabrus coeruleus, Serranus scriba; Catania).—Looss, 1899b, 571 (as described by Stoss., this belongs to Creadiinae, possibly to Creadium).
- flexuosum* (Rud., 1809) Duj., 1845a, 386, 398-399.—Type of Omphalometra 1899.
- fuscigerum* (Olss., 1868) Stoss., 1886, 58.
- fuscum* (Rud., 1819) —? —, date?
- fuscescens* (Rud., 1819) Stoss., 1886, 59.
- gelatinosum* (Rud., 1819) Stoss., 1895, 226-227, 236, 237.—Looss, 1899b, 567-568.
- globiporum* (Rud., 1802) Stoss., 1886, 59.
- gobii* (Stoss., 1883) Stoss., 1886, 58; 1892.
- heterostomum* (Rud., 1809) Duj., 1845a, 400 (thinks it identical with hians).—Braun, 1899, 1 (to Dicrocœlium); 1899, 487 (to Clinost.). See Dicrocœlium.
- hians* (Rud., 1809) Duj., 1845a, 399.—Looss, 1899b, 563 (type of Cathæmasia).
- horridum* (Leidy, 1850) Stoss., 1895, 220, 234. See Plagiorchis.

(DICROCELIUM)—Continued.

- labracis* Duj., 1845a, 386, 398 (in *Labrax lupus*; Rennes).—Ben., 1870, 45 (to Echinost.). See *Dicrocoelium*.
- labri* (Stoss., 1886) Stoss., 1886, 60.
- lancea* (Dies., 1850) Stoss., 1892, 26–27, 37.
- lanceolatum* (Rud., 1803) Duj., 1845a, 386, 391–392 [not Schrank, 1790]. See *Dicrocoelium lanceatum*.
- lingua* (Crep., 1825) Stoss., 1892, 158, 190.—Looss, 1899b, 586 (type of *Tocotrema*).
- linstovi* (Stoss., 1890) Stoss., 1895, 224–225, 237.—Looss, 1899b, 566 (to *Telorchis*).
- longissimum* (Linst., 1883) Stoss., 1892, 161, 191.—Stiles & Hass., 1896c, 155 (to *Opisthorchis*).
- longissimum* (Poir., 1886) Stoss., 1892, 25–26, 37.
- lucipetum* (Rud., 1819) Duj., 1845a, 386, 400–401.—Looss, 1899b, 587 (to *Philophthalmus*).
- macrourum* (Rud., 1819) Baird, 1853a, 50.—Par., 1899 (to *Dicrocoelium*); 1902, 4 (in *Sturnus vulgaris*, *Turdus musicus*; Elba). See *Dicrocoelium*.
- mutabile* (Mol., 1895) Stoss., 1895, 224, 236. See *Dicrocoelium*.
- naia* (Rud., 1819) Duj., 1845a, 387, for *naja*.
- naja* (Rud., 1819) Duj., 1845a, 395.—Looss, 1899b, 604 (type of *Macrodera*).
- neglectum* (Linst., 1887) Stoss., 1889, 65.—Looss, 1899b, 617 (= *Pleurogenes claviger*).
- nigrovenosum* (Bellingham, 1844) Stoss., 1895, 222–223, 234.—Luehe, 1899, 535 (thinks *D. nigrovenosum* belongs to *Lecithodendrium*).
- oratum* (Rud., 1803) Duj., 1845a, 388, 394–395.—Stoss., 1892, 144 (to *Cephalogonimus*).—Type of *Prosthogonimus* 1899 and *Prymnaprion* 1899.
- pallasii* (Poir., 1885) Stoss., 1892, 27, 37.
- pallens* (Rud., 1819) Stoss., 1886, 59.
- pellucidum* (Linst., 1873) Stoss., 1892, 157, 192.—Looss, 1899b, 629 (to *Prymnaprion*).
- poirieri* Stoss., 1895, 227, 237.—Looss, 1899b (to *Telorchis*).
- pulchellum* (Rud., 1819) Barbagallo & Drago, 1903, 410 (in *Gobius jozo*; Catania).
- rathouisi* (Poir., 1887) Stoss., 1892, 27–28, 40.
- reflexum* (Crep., 1825) Stoss., 1886, 57.
- retusum* (Duj., 1845) Stoss., 1886, 63.
- sauromates* (Poir., 1886) Stoss., 1895, 220–221, 235.
- scorpenæ* (Rud., 1819) Stoss., 1886, 59.—Par., 1899, 5 (to *Dicrocoelium*). See *Dicrocoelium*.
- simplex* (Rud., 1809) Stoss., 1886, 58.
- singulare* (Mol., 1861) Stoss., 1892, 162, 191.—Looss, 1899b, 596 (type of *Stomylus*).
- spatula* Duj., 1845a, 386, 394 (in *Accentor modularis*; Rennes).
- spinatum* (Linst., 1880) Stoss., 1892, 162, 193.—Luehe, 1899, 531 (perhaps syn. with *Dist. cirratum*).
- squamula* (Rud., 1819) Stoss., 1892, 20, 39.—Type of *Eurysoma*.
- verrucosum* (Mol., 1859) Stoss., 1900, 59. Homonym.
- vitellilobum* (Ols., 1876) Stoss., 1889, 67.—Looss, 1899b, 606–607.
- viverrini* (Poir., 1886) Stoss., 1892, 24, 39.—Stiles & Hass., 1896, 155 (to *Opisthorchis*).

DICROCELIUM (Duj., 1845) E. Bl., 1847, 291 (tld. *lanceatum*).—R. Bl., 1891, 609, 610; 1895, 730.—Braun, 1892a, 643; 1893a, 885, 909, 910; 1893, 353, 354; 1893f, 388; 1901a, 34; 1901, 562, 563, 565; 1901h, Nov. (n. sp. in *Zibethkatze*), 700, 701, 702; 1902, 17 June, 356; 1902b, 97, 100, 102; 1903, 166; 1906, 173–174.—Cohn, 1903, 37.—Darr, 1902, 698.—Gomy, 1897a, 374.—Hausmann, 1897b, 29.—Hollack, 1902a, 867–869.—Hoyle, 1890, 540.—Klein, 1905, 20; 1905, 78.—Leuck., 1863a, 586.—Looss, 1899b, 535, 610, 632–635, 648, 650, 721.—Luehe, 1899, 530, 533; 1900, 490; 1901, 173.—Mont., 1888a, 92, 105; 1893, 150; 1896, 168.—Pratt, 1902a, 889, 904 (key).—Rail., 1900, 212; 1900, 239–242 (of birds); 1900, 514.—Rail. & Marotel, 1898, 33, 37, 38.—Sons., 1889, 276.—Stiles, 1898a, 22, 55; 1901, 193, 197.—Stiles & Hass., 1898a, 87 (*lanceatum* designated type), 97.—Stoss., 1892, 20; 1898, 41.—Ward, 1903, 571.

DICROCÆLIUM—Continued.

- albicollis* (Rud., 1819) Braun, 1901, 562; 1902b, 99–101, fig. 58 (includes *macrourum* Stoss., 1892, *longicauda* p. p. Muehling, 1890), in *Aquila pennata*; Vienna.
- attenuatum* (Duj., 1845) Rail., 1900, 241 (in *Turdus merula*).
- buski* R. Bl., 1888a, 622, for *buskii*.—Stiles, 1904i, 41.—Ward, 1895, 328 (in *Homo*).
- buskii* (Lankester, 1857) Weinland, 1858, 87; 1859, 281.—Cobbold, 1866, 6; 1876, 303; 1879, 20.—Stiles, 1904i.
- clathratum* (Deslongchamps, 1824) Looss, 1899b, 634.—Braun, 1902b, 100, 101.—Rail., 1900, 239.
- celomaticum* (Giard & Billet, 1892) Rail., 1896, 160.—Gomy, 1897a, 374, 375.
- concinnum* Braun, 1901, 700–702, 1 fig. (in *Viverra zibetha*).—Hollack, 1902a, 869.
- deflectens* (Rud., 1819), 1901h, 702; Braun, [1901, 563]; 1902b, 101–102, fig. 59 (in *Thryothorus hypoxanthus*; Brazil).
- delectans* Braun, 1901g, 945–946 (in *Myiothera ruficeps*; Brazil); 1901h, 702; 1902b, 102–103, fig. 60.
- dendriticum* (Rud., 1819) Looss, 1899b, 634.—Braun, 1901h, 702.
- felineum* (Rivolta, 1884) Moniez, 1896, 136.—Type of *Opisthorchis*.
- heterophyes* (Sieb., 1852) Weinl., 1858, 86; 1859, 281.—R. Bl., 1888a, 625.—Cobbold, 1866, 6.—Ward, 1895, 328.—Type of *Heterophyes*.
- heterostomum* (Rud., 1809) Braun, 1899, 1; 1900h, 19, 30.
- hospes* Looss, 1907, Mar. 5, 478–479, fig. 1 (in cattle from Soudan, in Cairo, Egypt).
- illiciens* Braun, 1901g, 944–945 (in *Rhamphastus* sp., *Pipra rupricola*; Brazil); 1901h, 702; 1902b, 102, 103, 104, 105–106, fig. 6.
- labracis* (Duj., 1845) Par., 1899, 5; 1902, 4 (syn. *D. verrucosum* Mol.) (in *Labrax lupus*; Elba).
- lanceatum* Stiles & Hass., 1896c, 158 (*lanceolata* Rud., 1803, not Schrank, 1790, renamed); 1898a, 87, 97 (type).—R. Bl., 1900, 488; 1901b, 204, 207, 209, 210; 1901c, 581 (in sheep), 584, 586, 587.—Bossuat, 1902, 188, 189.—Braun, 1901h, 702; 1903, 166–168, figs. 115–117; 1906, 174–176, figs. 106–108 (in *Limax*, *Arion*, sheep, ox, goat, ass, horse, deer, hare, rabbit, pig, man; Egypt, Siberia, Turkestan, North and South America).—Gomy, 1897a, 374.—Hollack, 1902a, 868.—Kamensky, 1902, 57–62 (in dogs).—Looss, 1899b, 633, 634, 635; 1905, 88 (rare in man); 1907, Feb. 1, 125, 126, 132, 134; 1907, Mar. 5, 479.—Rail., 1899, 345.—Rail. & Marotel, 1898, 33, 38.—Stiles, 1898a, 23, 55, 56, 137, 138, 139, 140, 141, 142, 143, figs. 36, 38; 1901, 193; 1902, 25, 28, 29, 33, 34; 1902, 204; 1903, 8, 84; 1904, Aug., 9, 12, 13, 29, 30, figs. 39–41.—Stoss., 1901, 97 (in *Lepus timidus*; Trieste).—Ward, 1903, 407; 1903, 864, 866, 869, 871 (description).
- lanceolatum* (Rud., 1803) Weinl., 1858, 86; 1859, 280.—R. Bl., 1888a, 602, 626; 1895, 734.—Braun, 1903, 166.—Engler, 1904, 186.—Galli-Valerio, 1898c, 7, 8; 1901c, 364 (mouton, cheval).—Kamensky, 1902a, 57–62 (in dog), 63–64.—Luehe, 1901, 172, 173; 1901, 487.—Stiles, 1898a, 55.
- lobatum* Rail., 1900, 241–242 (in *Accipiter nisus*).—Braun, 1901, 565; 1902b, 109, 110, 111 (to *Lyperosomum*).
- longicauda* (Rud., 1809) Looss, 1899, 634.—Braun, 1902b, 106, 107 (to *Lyperosomum*).—Rail., 1900, 240, 241.
- lubens* Braun, 1901g, 945 (in *Pipra rupricola*); 1901h, 702; 1902b, 102, 103, fig. 63 (*Pipra rupricola*).
- macrourum* (Rud., 1819) Par., 1899, 4.
- mutabile* (Mol., 1859) Braun, 1901, 702.
- oculi humani* (Gescheidt, 1833) Weinland, 1858, 86; 1859, 281.—R. Bl., 1888a, 630.—Stiles, 1902s, 29, 34.—Ward, 1895, 328 (in *Homo*).
- olssoni* Rail., 1900, 239 (*Apus apus*) “*Dist. clathratum* [Deslongchamps] of Olss. et Mueh.,” renamed.—Braun, 1902b, 109.
- pancreaticum* (Rail., 1890) Rail., 1897, 371–377, 1 fig.—Braun, 1901h, 702.—Gomy, 1897a.—Looss, 1899b, 634; 1907, Feb. 1, 128, 132 (of Rail. & Marotel, 1898, syn. of *Eurytrema celomaticum*).—Stiles, 1898a, 23, 55, 56, 57, 140, fig. 40.
- panduriforme* Rail., 1900, 240–241 (in *Pica pica*).—Braun, 1902b, 109.

DICROCELIUM—Continued.

petiolatum Rail., 1900, 241 (in *Garrulus glandarius*).—Braun, 1901, 946; 1901h, 702; 1902b, 98, 99, 109, fig. 57.

plesiostomum (Linst., 1883) Looss, 1899b, 634.

refertum (Mueh., 1898) Looss, 1899b, 634.

reficiens Braun, 1901g, 945 (in *Falco nitidus*); 1901h, 702; 1902b, 98, 103, fig. 62.

scorpænae (Rud., 1819) Par., 1899, 5; 1902, 5 (in *Scorpæna scrofa*; Elba).

sinense (Cobbold, 1875) Moniez, 1896, 125.

strigosum Looss, 1899b, Dec., 634, 635, 727–728, fig. 47 (in *Merops apiaster* L. & Gm.; Marg).—Braun, 1902b, 109.

voluptarium Braun, 1901g, 945 (in *Falco* sp.); 1901h, 702; 1902b, 102, 103.

DICROGASTER Looss, 1902h, 134 (tod. *perpusillus*) (subf. *Haploporinae*).

contractus Looss, 1902h, 136, figs. 3–4 (in *Mugil chelo*).

perpusillus Looss, 1902h, 134, 135–136, figs. 1–2 (in *Mugil chelo*).

DIDYMOCESTIS Ariola, 1902, 105, for *Didymocystis*.DIDYMOCYSTIS Ariola, 1902, 101–103 (tod. *reniformis*) fam. *Didymozoonidæ*.

reniformis Ariola, 1902, 101–103, 104, 107, figs. 1–3 (in *Thynnus vulgaris*; Naples) (includes *Monost. bipartitum* 2d form Wagener, 254, pl. 9, fig. 2, and *Didymozoon thynni* Tasch., 1879, 612).

wedli Ariola, 1902, 105–107, figs. 7–10 (in *Thynnus vulgaris*; Naples; Th. vul. and Th. tunnina from Gulf of Genoa) (includes *Monost. bipartitum* 3d form Wagener, pl. 9, figs. 5–8, and *Didymozoon thynni partim* Braun, Vermes IV, pl. 26, fig. 6d.).

DIDYMOSTOMA Ariola, 1902, 103–105 (evidently m. *bipartitum*), *Didymozoonidæ*.—This genus falls as syn. of *Wedlia* 1860.

bipartitum (Wedl, 1855) Ariola, 1902, 103–105, figs. 4–6 (includes *Monost. bipartitum* Wedl partim, *Didymozoon thynni partim*, *Monost. micropterygis* Richiardi) (in *Thynnus vulgaris*; Naples).

micropterygis (Richiardi, 1901) Ariola, 1902, 105. See also under syn. of *bipartitum*.

DIDYMOZOON Tasch., 1878, 716 (no sp. mentioned); 1879, 72; 1879, 605–617 (*Wedlia* renamed, hence type *thynni* = *bipartitum*), pl. 6, figs. 1–5; *διδυμοζων, ζωον*.—Ariola, 1902, 25 July, 99–108, figs. 1–11; 1903, 14 Aug., 533; 1905, July, 61.—Braun, 1883, 42, 57; 1891d, 424; 1892a, 569, 574, 577, 660, 696, 698, 699, 700, 704, 707, 711, 727, 734; 1893a, 878, 879, 886, 890, 894, 895, 913, 918; 1895, 126, 136.—Hoyle, 1890, 539.—Jackson, 1888, 654.—Looss, 1892a, 81; 1899b, 542.—Maclaren, 1904b, 602, 612.—Moniez, 1891, 186, 187.—Mont., 1888a, 9, 11, 15, 18, 34, 52, 53, 57, 92, 93, 106; 1892, Oct. 7, 214 (g. of *Didymozoonidæ*); 1892, 689, 690, 693, 713, 716; 1893, 24, 27, 137, 149, 150.—Par. & Perugia, 1893, 2, 3.—Poche, 1907, 125.—Pratt, 1902a, 890, 908 (key).—Richiardi, 1902–3, 4–5 (n. sp.).—Schneidemuehl, 1896, 295.—Stoss., 1898, 62.

auxis Tasch., 1879, 613, pl. 6, figs. 1, 3 (in *Auxis rochei*; Naples).—Braun, 1883, 41, 57; 1892a, 574; 1893a, 913.—Par., 1894, 169.—Par. & Perugia, 1890, 10; 1893, 2 (in *A. roch.*).

benedenii Mont., 1893, 137 (in *Orthogoriscus*).—Maclaren, 1904, 602.

exocæti Par. & Perugia, 1893, 1–4 (in *Exocætus volitans*; Genova) (syn. *Monost. filum* Wagener not Duj.).—Par., 1902, 7 (in *E. vol.*).

filicollæ Mont., 1893, 150.

lampridis Loennb., 1891, 73–75, pl. 2, fig. 9 (in *Lampris guttatus*; Kristiania Museum).—Braun, 1891d, 424; 1893a, 914.

micropterygis Richiardi, 1902, 4–5 (in *Micropteryx dumerilii* Cuv.).

pelamydis Tasch., 1879, 612, 614, 615, 616, pl. 6, figs. ii, v (in *Pelamys sarda*; Naples).—Braun, 1883a, 41; 1893a, 913.—Moniez, 1891, 186.—Par., 1894, 169; 1902, 7 (in *P. s.*).—Par. & Perugia, 1890, 10; 1893, 2 (in *Pelamys sarda*).

pretiosus Ariola, 1902, 107–108, fig. 11 (in *Thynnus vulgaris*).

scombrì Tasch., 1879, 612, 615, 616, pl. 6, fig. iv (in *Scomber colias*; Naples).—Braun, 1892a, 734; 1893a, 913.—Mont., 1890, 427.—Par. & Perugia, 1890, 10; 1893, 2 (in *Scomber scomber*).—Stoss., 1890, 50; 1898, 63.

serrani Mont., 1889, 322–323, pl. 33, fig. 6 (in *Serranus fimbriatus* at Madeira and *S. gigas* at Naples).—Braun, 1893a, 914.—Par. & Perugia, 1893, 2 (in *Serranus gigas*).

species Par. & Perugia, 1890, 10.

DIDYMOZOON—Continued.

sphyrænæ Tasch., 1879, 612, 614, 615 (in *Sphyræna vulgaris*; Naples).—Barbagallo & Drago, 1903, 411 (in *Sphyræna vulgaris*; Catania).—Brand., 1891d, 18.—Braun, 1893a, 913.—Maclaren, 1904b, 608.—Mont., 1888a, 7, 17; 1892, 716.—Par., 1894, 169; 1899, 7; 1902, 7 (in *S. vul.*).—Par. & Perugia, 1890, 10; 1893, 2 (in *Sphyræna vulgaris*).

tænioides Mont., 1888a, 93 (in *Orthagoriscus mola*); 1893, 137.—Maclaren, 1904b, 602.—Stoss., 1900, 8, figs. 10–11 (in *Or. mola*; Trieste).

thynni Tasch., 1879, 612, 613, 614, 615, 616 (syn. *Monost. bipartitum* Wedl [type of *Wedlia* 1860]) (in *Thynnus vulgaris*).—Ariola, 1902, 100, 101 (of Tasch. syn. of *Didymocystis reniformis* Ariola), 103 (of Braun's *Vermes*, figs. 6–7, syn. of *Didymostoma bipartitum*), 105 (of Braun's *Vermes*, pl. 26, fig. 6d, syn. of *Didymocystis wedli* Ariola).—Barbagallo & Drago, 1903, 411 (in *Thynnus vulgaris*; Tonnara di Sa. Panagia).—Braun, 1883, 57; 1892a, 660, 734; 1893a, 914.—Gamb., 1896a, 71.—Moniez, 1891, 186.—Par., 1894, 169.—Par. & Perugia, 1889, 746–747 (syn. *Monost. bipartitum* Wedl.) (in *Thynnus thunnina*); 1890, 746–747; 1890, 9–10; 1893, 2.—Stoss., 1898, 62–63.

DIDYMOZOONIDÆ Mont., 1888a, 17, 18, 23, 52, 93, 106; 1892, 7 Oct., 214 (f. of suborder *Malacocotylea*); 1892, 689; 1893, 12.—Ariola, 1902, 101.—Brand., 1892, 505.—Braun, 1893a, 887, 890, 895, 900, 913; 1895, 136.—Looss, 1899b, 541, 543, 659.—Luehe, 1901, 488.—Maclaren, 1904b, 603, 612.—Par. & Perugia, 1890, 9.—Poche, 1907, 125.—Pratt, 1902a, 890, 908 (key), includes *Didymozoon*, *Nematobothrium*.—Schneidemuehl, 1896, 295.—Stoss., 1898, 62.

DIDYMOZOONTIDÆ Gamb., 1896a, 73.

DIGENA Olsson, 1893, for *Digenea*.

DIGENEA Ben., 1858, see Braun, 1883, 38, 58; 1890a, 473, 486; 1892a, 567, 574, 601, 775; 1893a, 888, 891, 895, 898; 1895, 136.—Carus, 1863, 478.—Gamb., 1896a, 73.—Hahn & Lefèvre, 1884, 804.—Hoyle, 1890, 539 (includes *Monostomidæ*, *Distomidæ*, *Gasterostomidæ*, *Holostomidæ*).—Kholodk., 1899a, 149.—Knoch, 1894a, 11.—Kofoid, 1899, 183.—Looss, 1899, 543.—Odhn., 1902, 42, 43; 1905, 293–295.—Pratt, 1900a, 645, 646.—Stiles, 1898a, 27.—Ward, 1903, 865.

1893: *Digena* Olss., 1893, for *Digenea*.

DIGENEA s. strict. Leuck., see Looss, 1899b, 543.—Luehe, 1901, 488.

DIHEMISTEPHANUS Looss, 1901, 605–606, 628–629 (m. *lydiæ*).—Pratt, 1902a, 888, 894 (key).

lydiæ (Stoss., 1896) Looss, 1901, 605–606, 628–629.

DIKLIBOTHRIUM Leuck. in Kollar, 1836, 81.—Nord., 1840, 600, for *Diclybothrium*.

crassicaudatum Leuck. in Kollar, 1836, 81.—Nord., 1840, 600 (syn. of *Hexacotyle elegans*).

DIONCHUS Goto, 1899a, 286 (m. *agassizi*), 291; 1901, 351–352.—Mont., 1903, 336 (*Anisocotylinae*, subf.); 1905, 70.—Pratt, 1900a, 646, 650 (key), 655, 659, fig. 18.

agassizi Goto, 1899a, 286–291, pl. 21, figs. 19–24 (in *Remora brachyptera*; Newport, R. I.).—Pratt, 1900a, 655, 657, fig. 18, 659 (key).

agassizii Mont., 1905, 69, for *agassizi*.

DIOSTOMUM Duffek, 1903, 843 (misprint for *Distomum*).

DIPHTEROSTOMINÆ Stoss., 1904, 198.

DIPHTEROSTOMUM Stoss., 1904, 197–198 (tod. *brusinai* = *brusinæ*).

1905: *Diphtherostomum* Staff., 1905, Apr. 11, 684.

brusinæ (Stoss., 1889) Staff., 1905, Apr. 11, 684.

brusinai (Looss, 1901) Stoss., 1904, 197–198.

luteum (Ben., 1870) Stoss., 1904, 197 [name not available].—Staff., 1905, Apr. 11 (syn. *D. betencourti* Mont.).

DIPHTEROSTOMUM Staff., 1905, Apr. 11, 684, for *Diphtherostomum*.

DIPLECTANINÆ Mont., 1903, 336 (f. *Gyrodactylidæ*); 1905, 80.

DIPLECTANUM Dies., 1858e, 315, 381–382 (*æquans* [probably type], *pedatum*).—Ben. & Hesse, 1864, 121, 122.—Braun, 1883, 48; 1890a, 412, 416, 452, 465, 469, 478, 479, 512, 517, 523, 542, 546; 1893a, 890.—Gamb., 1896a, 73.—Hoyle, 1890, 539.—Maclaren, 1904b, 574, 582, 583, 584, 589, 590, 595, 596, 597, 598, 599, 600, 601.—Mont., 1888a, 10, 14, 16, 66, 84, 86, 102; 1891, 111; 1892, Oct. 7, 213 (g. of *Gyrodactylinae*); 1903, 336 (subf. *Diplectaninae*); 1905,

DIPLECTANUM—Continued.

80.—Pratt, 1900a, 646, 654 (key), 657, fig. 45.—St.-Remy, 1898, 568.—Stoss., 1898, 18.—Tasch., 1879, 69; 1879, 264 (syn. *Dactylogyrus* Wagener).

acquans Sons., 1891, 263 (for *æquans*).

aculeatum Par. & Perugia, 1889, 745 (in *Corvina nigra*: Genova); 1890, 745; 1890, 4, 9.—Braun, 1890a, 417, 546, 549, 550.—Maclaren, 1904b, 576–577, 593, 601.—Par., 1894.

æquans (Wagener, 1857) Dies., 1858e, 381 (in *Labrax lupus*).—Ben. & Hesse, 1864, 121, 122–123, pl. 13, figs. 9–22 (in *Lab. lup.*).—Braun, 1890a, 408, 409, 417, 468, 479, 489, 514, 546, 549, 551; 1891d, 422.—Kerbert, 1881a, 572.—Maclaren, 1904b, 573, 574–602, pl. 20, figs. 1–12, pl. 21, figs. 13–16, 18, 20, 22, text figs. A. C. 1–5; 1904, 9 June, 443–444; 1905, 31 Jan., 20–21; 1905, June, 317; 1905, Dec., 703.—Mont., 1888a, 7, 8, 10, 13, 14.—Par. & Perugia, 1890, 4, 9, 11.—St.-Remy, 1898, 568.—Scott, 1905, 117, pl. 6, fig. 24 (in *Lab. lup.*).—Sons., 1890, 173–174 (in *Umbrina cirrosa*); 1891, 263 (*acquans*), 264 (in *Umb. cirr-rhosa*).—Stoss., 1885, 162; 1898, 18.—Tasch., 1879, 59; 1879, 264 (in *Lab. lup.*).

echeneis (Wagener, 1857) Par. & Perugia, 1889, 746 (in *Sargus rondeletii*: Genova); 1890, 746; 1890, 4, 9; 1895, 1.—Braun, 1890a, 417, 546, 549, 552.—Maclaren, 1904b, 576, 577–578, 601.—Par., 1894, 594.—Stoss., 1898, 18.—Also reported for *Chrysophrys aurata*.

pedatum (Wagener, 1857) Dies., 1858e, 382 (in *Julis* sp. ad branchias).—Braun, 1890a, 546, 549, 551.—Maclaren, 1904b, 574, 575, 601.—Par. & Perugia, 1890, 9.—Tasch., 1879, 264 (in *Julis* sp.).

sciænæ Ben. & Hesse, 1863; 1864, 123–124, pl. 13, figs. 23–31 (in *Sciæna aquila*).—Braun, 1890a, 417, 546, 549, 552.—Maclaren, 1904b, 575, 601.—Mont., 1888a, 7, 4.—Pratt, 1900a, 657, fig. 45.—Sons., 1891, 263–264 (in *Sci. umbra*).—Tasch., 1879, 264 (in *Sci. aq.*).

sciænæ Ben. & Hesse, 1864, 123, misprint.

DIPLOBOTHRINÆ Mont., 1903, 336 (f. *Hexacotylidæ*); 1905, 78.

DIPLOBOTHRIMUM Leuck., 1842, 13 *Diclibothrium* renamed, hence (type by inclusion *armatum*) [not *Diplobothrium* Beneden, 1889, cestode].—Braun, 1889a, 338 (= *Diclibothrium*): 1890a, 413, 415, 511, 516, 517, 518, 523, 538, 539, 546; 1893a, 890.—Dies., 1850a, 421 (syn. of *Diclibothrium*).—Hoyle, 1890, 539 (“one species from the gills of a sturgeon”).—Mont., 1888a, 8, 11, 13, 89, 100; 1892, Oct. 7, 213 (g. of *Polystominae*); 1903, 336 (subf. *Diplobothrinæ*); 1905, 77, 78.—Pratt, 1900a, 646, 651 (key), 656, fig. 25.—Tasch., 1879, 69; 1879, 254 (syns. *Diclibothrium* Leuck., *Hexacotyle* Nord., *Polyst. Duj.*).

[*affine* Lœnning, 1892, cestode.]

armatum (Leuck., 1835) Leuck., 1842, 13–18, pl. 1, figs. 6a–f.—Braun, 1890a, 414, 419, 539, 548, 550.—Dies., 1850a, 421 (to *Diclibothrium*).—Pratt, 1900a, 656, 657, fig. 25.—Staff., 1904, 3 May, 488 (on gills of *Accipenser rubicundus*; Canada).—Tasch., 1879, 254–255 (syns. *Diclibothrium crassicaudatum* Leuck., *D. armatum* Leuck., *Hexacotyle elegans* Nord., *Polyst. armatum* Duj.).—Reported also for *Accipenser stellatus*.

[*simile* Ben., 1889, cestode.]

DIPLOCOTYLE Dies., 1850a, 286, 301 (m. *mutabile*); syn. *Diplodiscus* [not *Diplocotyle* Krabbe, 1874, cestode]; 1855a, 378, 381, 393, 394; 1858d, 272.—Ariola, 1901, 412.—Burm., 1856a, 250.—Fil., 1854a, 6.—Goldb., 1855, 16.—Moul., 1856a, 121, 123.

[*cohærens* Linst., 1903, cestode.]

mutabile Dies., 1850a, 301 (in *Planorbis nitidus*: Ticini) (*Diplodiscus diesingi* Fil., renamed); 1855a, 394; 1858d, 241, 242, 272–273 (*mutabilis*) (syns. *Diplodiscus diesingii*, *Cerc. diplocotylea* Pag.) (larva of *Diplodiscus subclavatus*) (in *Planorbis marginatus*, *P. nitidus*, *P. vortex*; Heidelberg, Ticini, Moncalier).—Ben., 1858a, 1861a, 82 (syn. of *Amphist. subclavatus*).—Linst., 1873, 1 (larva of *Diplodiscus subclavatus* Dies.) (*mutabilis*).—Moul., 1856a, 107 (= *Diplodiscus diesingii*), 208 (syn. of *Cerc. amphistomi subclavati*).

mutabilis Dies., 1855a, 394 (for *mutabile*).

[*olrikii* Krabbe, 1874b, 22, cestode.]

[*rudolphii* (Mont., 1890) Mont., 1890, cestode.]

[*serrata* Linst., 1901, cestode.]

DIPLODISCINÆ Cohn, 1904, 242.

DIPLODISCUS Dies., 1836d, 237, 238, 253–255 [type *subclavatus*]; 1850a, 287, 301 (of Fil., syn. of *Diplocotyle*), 318–319 (syns. *Planaria*, *Fasc.*, *Dist.*, *Hirudo*, *Amphist.*); 1855a, 380, 384, 393 (cf. *Diplocotyle*); 1858e, 312, 359; 1859c, 435–436 (mentions only *subclavatus*, but reference is not necessarily designation of type).—Brand., 1888a, 12.—Braun, 1892a, 613, 650, 663, 664, 665, 698, 712, 715, 814; 1893a, 817, 820, 823, 827, 872, 884, 886, 890, 894, 895, 904, 906, 918; 1895, 136.—Cobbold, 1872b, 91 (subg. of *Amphist.*).—Cohn, 1904, 242.—Crep., 1839a, 286.—Fil., 1837a, 334 (mentions only *diesingi*); 1855b, 24.—Fischder., 1902a, 6; 1903h, 487, 489.—Gamb., 1896a, 73.—Goldb., 1855a, 17.—Looss, 1902m, 440, 442.—Mont., 1888a, 7, 12, 35, 84, 91, 103; 1892, Oct. 7, 214 (g. of *Amphistominae*).—Moul., 1856a, 16, 121.—Nord., 1840, 629.—Piana & Stazzi, 1900, 523.—Poir., 1883, 79.—Pratt, 1902a, 887, 893 (key).—Schneidemuehl, 1896, 295 (*Diplodiskus*).—Sieb., 1854, 19, 20.—Sons., 1895, 185, 186.—Wagener, 1857, 27, 39, 45, pl. 16, fig. 4, pl. 17, fig. 2, pl. 18, figs. 1–4, pl. 19, figs. 1–4.

1850: *Diplocotyle* Dies., 1850a, 286, 301 (m. *mutabile* = *subclavatum*) [not Krabbe, 1874, *cestode*].

1896: *Diplodiskus* Schneidemuehl, 1896, 295 (for *Diplodiscus*).

conicum Polonio, 1859; 1860, see Par., 1894, 140 (in *Natrix torquata*; Padova). [See also *Dist. conicum* Polonio.]

diesingi Fil., 1837a, 334–336, figs. 1–5, 337 (in *Planorbis nitidus*; Ticino).—Dies., 1850a, 301 (syn. of *Diplocotyle mutabile*; type of *Diplocotyle*).

diesingii Fil., 1854a, 6, pl. 1, figs. 1–4 [type of *Diplocotyle*] (in *Planorbis nitidus*) for *diesingi*; 1855b, 14, 20, 22, 23.—Ben., 1858a, 1861a, 81, 82 (syn. of *Amphist. subclavatum*).—Dies., 1855a, 394 (syn. of *Diplocotyle mutabilis*); 1858d, 272 (syn. of *Diplocotyle mut.*).—Levin., 1881a, 63.—Moul., 1856a, 95 (to *Cerc.*) (syn. *Redia gracilis* Fil.), 106, 107, 208, 209 (syn. of *Cerc. amphistomi subclavati*).—Villot, 1878, 36 (syn. of *Cerc. diplocotylea* Dies.).

mutabilis (Dies., 1850) Par., 1894, 140 to (*Diplocotyle*) (in *Planorbis nitidus*; Pavia).

subclavatus (Pallas, 1760) Dies., 1836d, 238, 240, 253–254, pl. 24, figs. 19–24 (in *Hyla arborea*, *Rana temporaria*, *R. esculenta*, *Bufo cinereus*, *B. igneus*, *Leptodactylus sibilatrix*); 1850a, 318–319 (includes *Hirudo tuba* Braun); 1858e, 359–360 (in *Dendrohyas viridis*, *Pelophylax esculentus*, *Rana temporaria*, *R. pipiens*, *Phryne vulgaris*, *Bufo viridis*, *Bombinator igneus*, *Leptodactylus sibilatrix*, *Lissotriton punctatus*); 1859c, 435–436 (includes *Amphist. subclavatum* Ben., 1858, 81, *Cerc. amphistomi subclavati* Ben., 1858, 82, in *Cyclas cornea*, etc.).—Ben., 1858a, 1861a, 82 (to *Amphist.*).—Bettend., 1897a, 4, 37 (of Goeze); 1897, 308.—Blochmann & Bettend., 1895a, 217, fig. 3.—Braun, 1892a, 598, 613, 620, 641, 650, 693, 698, 711, 759, 760, 766, 768, 776, 779, 783, 785, 798, 804, 806, 807, 809, 812, 813, 814; 1893a, 817, 818, 823, 824, 828, 830, 831, 906.—Cobbold, 1872b, 92; 1879, 51.—Cohn, 1903, 39; 1904, 240, 241, 242.—Crep., 1839a, 286, 287.—Darr, 1902, 679.—Fil., 1837a, 338 (to *Amphist.*); 1854; 1855.—Fischder., 1903h, 488.—Gamb., 1896a, 71.—Giebel, 1857, 266.—Kowal., 1894, 2.—Lang, 1892a, 81 (to *Amphist.*).—Linst., 1873, 1 (larva = *Diplocotyle mutabilis* Dies.); 1877, 13–14.—MacCallum, 1905, 669.—Mol., 1859, 27.—Muehl., 1898, 20.—Nord., 1840, 627 (to *Amphist.*), 629.—Par., 1894, 140 to (*Amphist.*) (in *Rana esculenta*; Padova).—Polonio, 1859.—Sieb., 1837, 263.—Sons., 1895, 180, 185.—Ssnitzin, 1905, 157–158; 1906, 685.—Stoss., 1890, 51.—Wagener, 1857, 26, 100, pl. 16, fig. 4, pl. 17, fig. 1.

subclavatus Dies., of Leidy, 1856b, 45 (in *Rana pipiens*); 1904a, 88.—Staff., 1905, 689–690 (syn. of *Diplodiscus temperatus* n. sp.).

temperatus Staff., 1905, 689 (in *Rana catesbiana*, *R. virescens*; Canada), includes *subclavatus* Dies. of Leidy, 1856.

unguiculatus (Rud., 1819) Dies., 1836d, 238, 254–255, pl. 24, figs. 25–27 (in *Salamandra palustris*); 1850a, 319.—Baird, 1853a, 44 (= *Amphist. subclavatum* Rud.).—Braun, 1892a, 613.—Crep., 1839, 287.—Fischder., 1903h, 488.—Nord., 1840, 629 (in *Triton lacustris*).

DIPLODISKUS Schneidemuehl, 1896, 295, for *Diplodiscus*.

DIPLOOZON Mont., 1888a, 64, for *Diplozoon*.

DIPLOOZOON Mont., 1888a, 64, for *Diplozoon*.

DIPLOSTOMA Cobbold, 1860a, 49, for *Diplostomum*.

DIPLOSTOMATUM Olss., 1893, 8, see *Diplostoma*.

DIPLOSTOMEA Olss., 1893, 8, f. name for *Diplostomeæ*.

- DIPLOSTOMEÆ Mont., 1888a, 6, 7, 11, 12, 14, 15, 18, 26, 28, 33, 34, 41, 46, 47, 51, 52, 53, 54, 56, 57, 60, 64, 67, 90, 91, 92, 94, 102, 103, 108; 1891, 110.—Brand., 1888a, 49; 1890a, 576, 580.—Braun, 1893a, 886, 887.
- DIPLOSTOMIDÆ Poir., 1886, v. 4 (3), 327–346, pls. 18–20; (1887) v. 1 (14), 425–426.—Brand., 1888a, 17, 49, 53; 1890a, 575.—Braun, 1893a, 886, 887.—Mont., 1888a, 10, 15, 22, 53, 91, 103.
- DIPLOSTOMINÆ Brand.—Braun, 1893a, 890, 895, 901.—Mont., 1892, Oct. 7, 214 (subf. of Holostomidæ).—Pratt, 1902a, 890, 908 (key) (includes Diplost., Polycotyle).
- DIPLOSTOMULUM Brand., 1892b, 511, as collective group, not as genus, hence no type.
constrictum (Dies., 1850) Brand., 1892b, 511.
- DIPLOSTOMUM Nord., 1832a, 27–28, 34, 39, 47, 69 (type of first group Dip. volvens; type of second group Dip. clavatum; type by elimination and page precedence volvens) [not Diplostoma Rafinesque 1817, mammal; 1840, 561, 602, 617, 629–630.—Brand., 1888a, 11, 12, 17, 18, 49, 50 (proposed as new genus; not of Nord.), 52, 54–58; 1890a, 575, 576, 578, 580.—Braun, 1883, 40, 56; 1890a, 515; 1892a, 600, 658, 715, 774, 792, 793, 794; 1893a, 872, 879, 881, 884, 886, 887, 890, 892, 895, 900, 901, 917; 1893b, 187; 1894, 166; 1895, 132, 136.—Burm., 1837a, 529; 1856a, 250.—Cobbold, 1860a, 49 (Diplostoma).—Crep., 1839a, 289.—Dies., 1850a, 287, 304 (syn. of Tylodelphys), 305–307; 1855, 60; 1858e, 312, 317–318 (volvans, cuticola, grande); 1859c, 424.—Duj., 1845a, 473–474.—Fischer, 1840a, 156.—Gamb., 1896a, 64, 73.—Goldb., 1855a, 17.—Heider, 1900, 21.—Henle, 1835a, 587.—Hoyte, 1890, 539.—Jackson, 1888, 652, 653, 654.—Leuck., 1863a, 475, 525.—Mol., 1858, 287; 1861, 191.—Mont., 1888a, 15, 54, 57, 61, 71 (Diplost.), 83, 84, 91 (Diplostostomum), 104; 1892, Oct. 7, 214 (g. of Diplostominæ).—Moul., 1856, 12, 16 (probably young holostomes).—Pavesi, 1881, 615.—Poir., 1886, 327–346.—Pratt, 1902a, 890, 908 (key).—Schneidemuëhl, 1896, 295.—Tasch., 1879, 233.—Villot, 1898, 541, 542.—Wyman, 1869, 42.—Wolf, 1903, 605.
- 1860: Diplostoma Cobbold, 1860a, 49–51, for Diplostomum.
- 1888: Diplostostomum Mont., 1888a, 91, misprint.
- 1888: Displostomum Mont., 1888a, 71, misprint.
- abbreviatum* Brand., 1888a, 55 (in Crocodilus sp.: Brazil; 1890a, 581–582, pl. 39, figs. 15–17 (in Croc. sp.: Brazil).—Braun, 1893a, 901.
- ægyptiaca* Cobbold, 1876t, 757.—Fischder., 1903h, 488.—Sons., 1895, 179.
- ægyptiacum* Cobbold, 1876t, 757 (in Equus Egypti; 1877, 233, 235, 238.—Fischder., 1902a, 46 (syn. of Gastrodiscus polymastos Leuck.),—Lejtényi, 1881a, 1.—Looss, 1896b, 13 (to Gastrodiscus).—Sons., 1895, 179.—Ward, 1895, 338 (in Equus caballus).—Zuern, 1882, 222.
- alatum* (Gœze, 1782) Par., 1894, 140 (as Dip. (Hemist.) alatum Dies.) (in Vulpes vulgaris, Padova; Canis familiaris, Torino).
- auriflavum* Mol., 1859, 287 (in Ardea nycticorax: Batavii; 1861, 191–192, pl. 1, figs. 1–2.—Braun, 1893a, 901.—Dies., 1859c, 424.
- bifurcatum* (Wedl. 1861) Brand., 1888a, 57–58 (in Crocodilus vulgaris; Egypt; 1890a, 584.—Braun, 1893a, 901.—Odhm., 1902, 19.
- brevicaudatum* (Nord., 1832) Dies., 1850a, 306.—Braun, 1892a, 796.—Kroyer, 1852–53a, 1222 (in Barbus fluviatilis Ag.).—Villot, 1898, 542.
- clavatum* Nord., 1832a, 42–49, pl. 3, figs. 5–10, pl. 4, fig. 5 (in Perca cernua, P. fluviatilis, P. lucioperca; 1833, 286–295, pl. 18, fig. 4, pl. 19, fig. 2; 1840, 630.—Braun, 1892a, 654, 794.—Claparède, —, 198, pl. 8, figs. 1–3.—Crep., 1839a, 289.—Dies., 1850a, 305 (to Tylodelphys); 1858e, 316 (to Tylodelphys).—Duj., 1845a, 475.—Gescheidt, —, 428.—Henle, 1833a, 22.—Kroyer, 1838–40a, 21; 1846–53a, 253 (in Perca fluviatilis, Esox lucius).—Moul., 1856a, 220–221 (in eyes of perch by Nord.; Esox lucius Duj.; P. fluviatilis Moul.; Lake Leman).—Ols., 1893, 8.—Steenstrup, 1842, 58.
- cobitidis* Linst., 1890d, 179 (in Cobitis barbatula).—Braun, 1891d, 424 (in Cob. barb.).
- craniarium* (Dies., 1858) Cobbold, 1860, 49–50 (includes Trematodum sp. Leydig) (in Cobitis fossilis).
- cuticola* (Nord., 1832) Dies., 1850a, 306; 1858e, 317–318 (to Holost.) (in Pomotis vulgaris; Phila.; Leuciscus dobula, L. rutilus; Anglia; Gobio vulgaris, Phoxinus lævis).—Braun, 1892a, 796.—Koch, 1904, 795.—Kroyer, 1838–40a,

DIPLOSTOMUM—Continued.

- 578 (in *Perca fluviatilis* L.).—Lint., 1898, 513, pl. 41, figs. 6–10, pl. 42, figs. 1–5.—Staff., 1904, May 3, 494 (encysted in liver of *Ambloplites rupestris*; Canada).—Villot, 1897; 1898, 541, 542 (larva of *Hemist. denticulatum*) (in *Phoxinus laevis*).—Wellner, 1899, 51–53, 2 figs. (in Weissfisch).—Also reported for *Abramis brama*, *A. vimba*, *Blicca bjerkna*, *Cobitis taenia*, *Chaenobrythus gulosus*, *Chondrostoma nasus*, *Cyprinus carpio*, *Eupomotis auratus*, *E. pallidus*, *Gobio fluviatilis*, *Idus melanotus*, *Lepomis auritus*, *Leuciscus erythrophthalmus*, *L. idus*, *L. vulgaris*, *Scardinius erythrophthalmus*.
- [*fusca*=*Geomys bursarius*, mammal].—Stiles, 1896, 183.
- grande* Dies., 1850a, 305, 307 (in *Ardea leuce*, *A. agami*; Matogrosso, Brazil); 1855, 60, pl. 1, figs. 1–12; 1858e, 318; 1859c, 424 (in *Strix nivea*).—Brand., 1888a, 12, 18, 26, 50, 54–55 (syn. *Hemist. macropteron*) (in *Ardea leuce*; Brazil); 1890a, 554, 576, 581, pl. 39, fig. 14 (in *Ardea leuce*; Brazil).—Braun, 1892a, 582; 1893a, 901.—Leidy, 1859, 110.—Mont., 1888a, 12.—Poir., 1886, 328.
- lenticola* Linst., 1878, 226–227, fig. 9 (in *Abramis vimba*).—Braun, 1892a, 796.—Poir., 1886, 336 (in *Ab. vim.*).
- longe* Braun, 1892a, 581, see *longum*.
- longum* Brand., 1888a, 25, 55, 57, 61 (in *Crocodilus*; Brazil); 1890a, 553, 582, 584, pl. 39, figs. 1–9 (in *Croc.* by Natterer; Brazil).—Braun, 1892a, 569, 582, 586, 672; 1893a, 901.
- macrostomum* Jægers., 1900a, Jan. 6, 33–37, figs. 1–5 (in *Telmatias major*; ?Upsala).
- mülleri* Cobbold, 1860a, 50 (includes *D. petromyzi fluvialis* Mueller, *D. rachiseum* Mueller?, *Tylodelphys* Dies. Revis., p. 12) (in *Petromyzon fluviatilis*).
- musculicola* (Waldenburg, 1860) Braun, 1892a, 796.
- mutabile* (Dies., 1850) Par., 1896, 2, to (*Codonocephalus*) (in *Rana esculenta*; Italy).
- parvulum* Staff., 1904, 494 (in *Semotilus bullaris*; Canada).
- petromyzi fluviatilis* Dies., 1850a, 307, based on Mueller, 1840, 30 (in *Petromyzon fluviatilis*); 1858e, 318 (to *Tylodelphys*).
- pseudostomum* (Will.-Suhm, 1870) Poir., 1886, 334–339, 345, pl. 18, figs. 3–4, 5, 6, pl. 19, figs. 2, 4.—Brand., 1888a, 34, 50, 55–56 (in *Crocodilus*; Brazil); 1890a, 563, 576, 582–583, pl. 39, figs. 10, 11 (in *Croc. sp.*).—Braun, 1892a, 593; 1893a, 901.
- putorii* Linst., 1877, 191, pl. 14, fig. 21 (in *Fœtorius putorius*).—Brand., 1888a, 42; 1890a, 572.—Braun, 1894a, 796.
- rachiseum* Crep., 1839, 289.—Mueller, 1839, 198.
- rachidis* Par., 1896, 2, for *rachiseum* to (*Tylodelphis*).
- rachieum* Fraip., 1880c, 419, for *rachiseum*.
- rachineum* Mueller, (1842).
- rhachiseum* Henle, 1833a, 19–22, pl. 1, figs. 18–22 (in *Rana*).—Brand., 1888a, 15.—Braun, 1892a, 654 (*rachiseum*), 795.—Claparède, —, 198, pl. 8 (*rachiseum*).—Crep., 1839, 289 (*rachiseum*).—Dies., 1850a, 305 (syn. of *Tylodelphys rachidis*); 1858e, 316 (*rachiseum*), (syn. of *Tylodelphys rachidis*).—Duj., 1845a, 475 (*rachiseum*).—Fraip., 1880c, 419 (*rachieum*); 1881b, 7 (*rachieum*).—Hofman, 1899, 184 (*rachiseum*).—Jackson, 1888, 645 (excretory system).—Kuech., 1855, 187 (*rachiseum*).—Leidy, —, 383.—Leuck., 1863a, 526 (*rachiseum*).—Mont., 1888a, 41 (*rachieum*).—Moul., 1856a, 221 (*rachiseum*).—Mueller, 1839, 198 (*rachiseum*); 1842, — (*rachineum*) (in *Petromyzon fluviatilis*).—Par., 1896.
- siamense* Poir., 1886, 327–333, 336, 340, 345, pl. 18, figs. 1, 2, pl. 19, fig. 7, pl. 20, figs. 1–4 (in *Crocodilus siamensis*).—Brand., 1888a, 26, 34, 50, 56–57 (in *Croc. si.*); 1890a, 554, 563, 576, 583.—Braun, 1892a, 717; 1893a, 901.—Mont., 1888a, 12.
- spataceum* Stoss., 1896, 126 (for *spathaceum*).
- spathaceum* (Rud., 1819) Olss., 1876, 29–30.—Braun, 1893a, 901.—Stoss., 1896, 126 (*spataceum*); 1898, 20 (to *Conchosomum*).
- spathula* Brand., 1888a, 54 (syn. *Hemist. spathula*) (in *Falco palumbarius*; Wien. Museum); 1890a, 580, pl. 39, fig. 13.—Braun, 1892a, 582; 1893a, 901.—Also reported for *Asotus palumbarius*.

DIPLOSTOMUM—Continued.

spathulæforme Brand., 1888a, 44, 54 (in *Strix otus*); 1890a, 574, 580–581, pl. 39, fig. 12 (in *Otus vulgaris*).—Braun, 1892a, 582; 1893a, 844, 845, 901; 1894, 166.—Wolffhüegel, 1900, 9, 11, 12, 14.—Also reported for *Accipiter nisus*, *Egoliolus otus*, *Buteo vulgaris*, *Sarcophagus gryphus*.

sp. Kroyer, 1852–53a, 1051 (in *Petromyzon fluviatilis* L.).

sp. Lint., 1901, 415, 442, 471.

volvans Nord., 1832a, 28–41, 43, pl. 1, fig. 3, pl. 2, figs. 1–10, pl. 3, figs. 1–4, 9, pl. 4, fig. 6 (in *Cyprinus erythrophthalmus*, *Gadus lota*, *Perca cernua*, *P. fluviatilis*, *P. lucioperca*); 1833, 270–286, pls. 18, 19, figs. 1–3 (pl. 19, fig. 1, gives *Dist. volvans*, probably lapsus); 1840, 630.—Aubert, 1853, 90.—Brand., 1888a, 12; 1890a, 569.—Braun, 1892a, 636, 637, 648, 653, 654, 794–796; 1894, 166, 167; 1894k, 681 (larva of *Hemist. spathaceum*).—Brown, A. W., 1899d, 490, 493, 494.—Claparède, —, 100, pls. 4, 5.—Cobbold, 1858b, 159.—Crep., 1839a, 289; 1846, 150, 153.—Dies., 1850a, 306; 1858e, 317.—Duj., 1845a, 474–475.—Fraip., 1880a, 400; 1880c, 419, 420, 429–433, 441, 442, 443, pl. 18, figs. 18–21 (in *Leuciscus rutilus*, *Chondrostoma nasus*); 1881b, 1, 7; 1883a, 36.—Gamb., 1896a, 64, fig. 31 (as *Dip. (Tetracotyle) volvans*).—Gescheidt, 1833, v. 3, 426–428.—Henle, 1883a, 22.—Jackson, 1888, 645 (excretory system).—Kroyer, 1838–40a, 21, 579, 609; 1852–53a, 1224 (in *Leuciscus rutilus* L., *L. erythrophthalmus*, *Lota vulgaris*, *Perca fluviatilis* L., *Acerina cernua* L.).—Looss, 1885b, 20.—Mont., 1888a, 41, 42, 43, 45, 46.—Moul., 1856a, 220 (in eye of *Perca fluviatilis*, *P. cernua*, *P. lucioperca*, *Gadus lota*, *Cyprinus erythrophthalmus*).—Mueh., 1898, 16.—Olss., 1893, 9 (in *Leuciscus phoxinus*).—Steenstrup, 1842, 58.—Villot, 1898, 542 (larva of *Hemist. spathaceum*).—Also reported for *Acerina cernua*, *A. vulgaris*, *Lota communis*, *Lucioperca sandra*.

DIPLOSTOMUM Brand., 1888a, 50, 54–58, proposed as new genus [no type given], [not Nord., 1832], for abbreviatum, bifurcatum, grande, longum, pseudostomum, siamense, spathula, spathulæforme see under foregoing entry; 1890a.—The generic name *Diplostomum* Brand. falls as a homonym.

DIPLOSTOSTOMUM Mont., 1888a, 91 for *Diplostomum*.

DIPLOOZON Mont., 1888a, 64 (for *Diplozoon*).

DIPLOOZOON Mont., 1888a, 64 (for *Diplozoon*).

DIPLOZOON Nord., 1832a, 56–76 (n. paradoxum); 1840, 599.—Beard, 1905, v. 93, 383, 2 figs.—Ben., 1858a, 1861a, 11, 38, 168, 172, [200], 345; 1868, 28.—Ben. & Hesse, 1864, 61, 64, 96.—Brand., 1891b, 266; 1894a, 308.—Braun, 1889k, 620, 621; 1890b, 125, 127, 128; 1891d, 422; 1890a, 413, 414, 442, 451, 461, 468, 472, 475, 477, 480, 481, 482, 485, 491, 492, 493, 494, 495, 498, 500, 506, 507, 511, 514, 515, 516, 517, 518, 520, 522, 523, 533, 534, 535, 546; 1893a, 890; 1895, 125; 1899, 3.—Burm., 1837a, 530; 1856a, 251.—Carus, 1833, 477.—Cerf., 1895h, 918, 920; 1896, 514, 515; 1899a, 451.—Chatin, 1880f, 591–592; 1881a, 310–312; 1887d, 1005.—Crep., 1838, 84; 1839a, 292.—Dies., 1850a, 90, 422–423, 425; 1858e, 269–272, 315 (in subf. *Placoclectana*), 387.—Duj., 1845a, 315.—Gamb., 1896a, 55, 57, 61, 73.—Goldb., 1855a, 19.—Goto, 1891a, 167, 168, 169, 170, 176, 177, 178, 181, 183, 186, 187; 1891c, 103; 1893a, 800.—Haswell, 1892b, 149; 1893c, 114.—Hoyle, 1890, 539.—Ijima, 1884, 637, 638.—Jackson, 1888, 649 (= *Diporpa*), 653.—Juel, 1889, 33.—Kath., 1894a, 148, 155.—Leuck., 1863a, 48; 1879, 58, 62.—Leuck., 1886d, 45, 48.—Looss, 1892a, 72–73; 1893b, 810.—Mayer, 1841a, 34.—Mont., 1888a, 11, 15, 37, 49, 51, 52, 53, 55, 57, 58, 59, 60, 61, 63, 64 (*Diploozon*, *Diplozoon*), 65, 66, 70, 83, 84, 86, 89, 98, 99; 1892, Oct. 7, 186, 213 (in *Octocotylinæ*); 1893, 111; 1903, 336 (subf. *Octobohrinæ*).—Moul., 1856a, 10.—Pintner, 1891, 728.—Pratt, 1900a, 646, 651 (key), 656, fig. 31.—Tasch., 1879, 35, 69; 1879, 232, 233, 238, 249 (syn. *Diporpa* Duj.).—Wallenstedt, 1847, 7.

1835: *Diplozoon* Burm., 1835b, 187, for *Diplozoon*.

1888: *Diploozoon* Mont., 1888a, 64, for *Diplozoon*.

1888: *Diploozoon* Mont., 1888a, 64, misprint.

1900: *Diplozoön* Pratt, 1900a, 646, 651.

nipponicum Goto, 1891a, 151–192, pls. 21–23 (in *Carassius vulgaris*); 1891b, 472–473.—Braun, 1891d, 422.—Mont., 1893, 8, 111.

paradoxum Nord., 1832a, 56–57, pl. 5, figs. 1–5, pl. 6, figs. 1–2 (in *Cyprinus brama*); 1833, 373–396, pl. 20, figs. 1–4; 1840, 547, 597, 599.—Ben., 1858a, 1861a, 39–44, 53, 66, 99, 169, 176, 186, pl. 4, figs. 1–12.—Braun, 1883, 45, 51, 57, 71; 1890a, 409, 415, 420, 428, 438, 439, 445, 451, 452, 455, 456, 457, 465, 472, 479, 483, 489,

DIPLOZOON—Continued.

492, 499, 506, 512, 535, 548, 550, 551; 1891a, 52, 53.—Burm., 1837a, 530.—Cobbold, 1872b, 90.—Crep., 1838, 89 (in *Cyprinus balerus*, *C. brama*, *C. jesus*, *C. rutilus*, *C. vimba*; on gills); 1839a, 292.—Dies., 1850a, 423; 1858c, 282, 387 (in *Carassius gibelio*; *Rhodeus amarus*); 1859c, 444.—Duj., 1845a, 316.—Ehrenb., 1835, 128.—Fraip., 1880a, 400 (paraodoxum); 1880c, 416, 418, 433; 1883a, 36.—Gamb., 1896a, 59–61, figs. 27, 28.—Gosse, 1857a, 125.—Goto, 1891a, 151, 175, 185.—Hausmann, 1897b, 4, 7, 20, 22, 36–38 (in *Abramis brama*, *Cottus gobio*, *Gobio fluviatilis*, *Phoxinus laevis*).—Heller, 1857a, 109–110, 5 figs.—Hoyle, 1890, 539, fig. 3, A.—Ijima, 1884c, 637.—Jackson, 1888, 650.—Jacoby, 1900, 3.—Kerbert, 1881a, 556.—Kholodk., 1899a, 148, fig. 176.—Kollar, 1835, 81; —, 82.—Kroyer, 1846–53a, 388, 410, 419, 434, 446, 462; 1852–53a, 1223, 1224 (in *Abramis balerus*, *A. blicca*, *A. brama*, *A. vimba*; *Leuciscus erythrophthalmus*, *L. idus*, *L. rutilus*).—Lamarck, —, 599.—Leuck., 1863a, 450.—Looss, 1885b, 18; 1892a, 81.—Mayer, 1841a, 23.—Mont., 1888a, 9, 38, 40, 52, 58, 70; 1890, 421; 1892, Oct. 7, 186; 1893, 110, 111.—Mueh., 1898, 12, 18.—Olss., 1893, 6.—Par., 1896, 1.—Par. & Perugia, 1890, 7.—Paulson, 1862, 16 pp., 1 pl.; 1867, 1–24.—Pratt, 1900a, 656, 657, fig. 31.—Sieb., 1835, 58, 59; 1836, 105; 1836, 238; 1839, 163, 164; 1842, 459; 1850, 36–37; 1851, 10 Mar., 62–68 (conjugation); 1854, 52–58, 201–206.—Sons., 1897, 259.—Sramek, 1901, 95, 109, fig. 63 (in *Abramis brama* Cuv.).—Tasch., 1879, 249 (syn. *Diporpa dujardini* Dies.); 1879, 613.—Vogt, 1841, 33–36, pl. 2, figs. 10–12.—Wagener, 1857, 96, pls. 9–10.—Zeller, 1872, 3 May, 168–180, pl. 12, figs. 1–13 (development); 1872, Sept., 99–112; 1888, 23 Mar., 233–239, pl. 19 (genital organs); 1888, 427–428.—Also reported for *Blicca bjerkna*, *Carassius vulgaris*, *Chondrostoma nasus*, *Cyprinus blicca*, *C. cephalus*, *C. gobio*, *C. leuciscus*, *Gasterosteus aculeatus*, *Idus melanotus*, *Leuciscus cavedanensis*, *L. prasinus*, *Lota vulgaris*, *Scardinius erythrophthalmus*.

DIPLOZOUM Burm., 1835b, 187, for *Diplozoon*.

DIPORPA Duj., 1845a, 316–317, pl. 3, fig. C (m. *dujardini* Dies., 1850).—Ben., 1858a, 1861a, 38, 199.—Ben. & Hesse, 1864, 61, 64.—E. Bl., 1847, 337–338.—Braun, 1883, 57; 1890a, 424, 442, 452, 506, 507, 518, 535.—Chatin, 1880f, 591–592; 1881a, 310–312.—Cunningham, 1887a, 279.—Dies., 1850a, 289, 420, 425; 1858c, 269–272; 1858e, 315, 386.—Gamb., 1896a, 61.—Goldb., 1855a, 19.—Heller, 1857a, 110.—Jackson, 1888, 649.—Looss, 1892, 81.—Kroyer, 1846–53a, 434 (in *Leuciscus erythrophthalmus*).—Mont., 1888a, 70, 83, 84, 89.—Tasch., 1879, 232, 249 (syn. *Diplozoon* Nord.).

dujardini Dies., 1850a, 420 (in *Cyprinus erythrophthalmus*) (based on Duj., 1845a, 316–317, pl. 3, fig. c); 1858c, 271; 1858e, 386 (in *Phoxinus laevis*).—Ehrenb., 1852, 28.—Olss., 1893, 6.—Sieb., 1850, 36–37; —, 62.—Tasch., 1879, 249 (syn. of *Diplozoon paradoxum* Nord.).—Also reported for *Abramis alburnus*.

DISCOCOTYLE Dies., 1850a, 290, 423–424 (only positive species, hence type *sagittata*), 425.—Goldb., 1855a, 19; Tasch., 1879, 239.

1858: *Placoptectanum* Dies., 1858e, 315, 384, *Discocotyle* renamed, hence type *sagittatum*.

1890: *Discotyle* Braun, 1890a, 518, misprint.

hirundinaceum (Bartel, 1834) Dies., 1850a, 424 (sp. inq., nomen nudum except for habitat, *Coregonus wartmanni*).

leptogaster (Leuck., 1830) Dies., 1850a, 424 (in *Chimera monstrosa*; *Christiania*).—Kroyer, 1852–53a, 812 (in *Ch. mon. L.*).—Tasch., 1879, 245 (to *Octobothrium*).

sagittata (Leuck., 1842) Dies., 1850a, 423–424 (in *Salmo fario*).—Kroyer, 1838–40a, 616 (in *Salmo fario*).—Tasch., 1879, 244 (to *Octobothrium*).

DISCOCOTYLEA Dies., 1850a, 419, 422 (supergeneric).

DISCOCOTYLEÆ Dies., 1850a, 288, 289, 290 (supergeneric).—Goldb., 1855a, 17, 19.

DISCOTYLE Braun, 1890a, 518, misprint for *Discocotyle*.

DISCOTYLEA Ceri., 1899a, 351.

DISPLOSTOMUM Mont., 1888a, 71 (for *Diplost.*).

DISSICHYA Cosmovici, 1887a, 129, 131 (includes *Amphist.*, *Bilharzia*, *Dist. Gasterost.*, *Hemist.*, *Holost.*).—Mont., 1888a, 84.

DISTOAM Cobbold, 1875n, misprint for *Distoma*.

DISTOMA Retzius (1782); 1790, 32 (*Fasciola* Linn., 1758, renamed, hence type *hepatica*) [not *Distoma* Savigny, 1816, mollusk; *Distomus* Gertner 1774,

DISTOMA—Continued.

Ascidiae compositae; Distomus Steph., 1827. coleopteron; not Distoma Gærtner of Herdmann, 1890].—Abildg., 1790, 36 (syns: Fasc. hep. Linn., Fasc. Mueller, Planaria Göze, Fasc. Bloch).—Adam, 1879, 159.—Aitken, 1872, 203, fig. 36a.—Albarran, 1897b, 1096.—Anacker, 1885e, 438; 1885d, 380, 381; 1887b, 350.—Andral, 1829d, 617.—Ariola, 1899a; 1899 (in 129-138); —, 299.—Ashley, 1856, 7. 8.—Audouin, 1824a. 563-564 (polyp).—Baillet, 1866b, 99.—Bellingham, 1844a, 422-423.—Ben., 1870c, 142.—Ben. & Hesse, 1864a, 61.—E. Bl., 1847a, 291-292.—R. Bl., 1888a, 543, 567, 570, 575, 577, 584, 585, 590, 593, 594, 595, 597, 598, 599, 601, 602, 603, 605, 614, 615, 622, 624, 625, 627, 628. 630, 631, 635, 641, 643, 644, 646, 647; 1891p, 609; [1892b], 1026-1030, figs. 1-7.—Bojanus, 1817, pl. 9.—Brand., 1888a, 9; 1892b, 506.—Braun, 1883a, 59, 70; 1890a, 473, 479, 514, 515; 1891d, 423; 1892a, 570, 599, 635, 696, 715, 720, 735, 767, 769, 770; 1893a, 825, 837, 853, 857, 872, 879, 880, 884, 885, 886, 887, 890, 893, 894, 895, 902, 908, 913, 918; 1893f, 382, 383, 388, 389; 1893g, 802; 1894i, 604; 1895b, 17, 134, 136, 138; 1900b, in 217-236, 1 pl.; 1900. 3; 1900g, 254; 1900h, 3, 6; 1901e, 323, 332, 333, 338, 339, 340, 342; 1902b, 41, 51, 52, 53, 79, 117.—Burm., 1837a, 529; 1856a, 250.—Bremser, 1824, 133-134.—Buttel-Reepen, 1900a, 585-598, figs. 1-9 (2 species); 1902a, 282-283.—Carus, 1835a, 90, 91, 93; 1863, 479.—Chiaje, 1833, 11.—Cobbold, 1879b, 15; 1883p, 401, fig. 16; 1883x, 514.—Cohn, 1902h, 880.—Cosmovici, 1887a, 128.—Crep., 1837a, 309-329; 1839a, 288.—Daldorf, 1793, 159 (syn. of Fasc. hep.).—Davaine, 1877a, lxxiv.—Delafield & Prudden, 1897a, 130.—Dies., 1850a, 288, 293 (of Baer syn. of Rhopalocerca), 295 (of Fil. and Steenstrup syn. of Cerc.), 301 (of Baer syn. of Heterost. Fil.), 307 (of Rud. syn. of Hemist. Dies.), 318 (of Zed. syn. of ? Diplodiscus Dies.), 319 (of Zed. syn. of Monost. Zed.), 329 (of Ammon, syn. of Monost. lentis Nord.), 331-339 (syns. Fasc. Linn., Planaria Auct., Schisturus Rud., Alaria Blainv., Brachylemus E. Bl., Apoblema E. Bl.), 400 (of Bojanus syn. of Amphist. Rud. ex parte; of Rud. syn. of Rhopalophorus Dies.), 418 (of Henle syn. of Heptast. Otto Schomburgk), 573 (of Zed. syn. of Tetrabothriorhynchus Dies.), 609 (of Humboldt syn. of Pentast. Rud.); 1855a, 377, 380, 383 (of Fil., Sieb. & Steenstrup, syn. of Cercariae), 384, 385, 396; 1858e, 312, 329 (syns. Fasc., Plan., Dist., Schisturus, Alaria, Brachylemus, Apoblema, Clinost.), 331.—Doyère, 1838a, 131-132; 1838b, 398-399.—Duj., 1845a, 381-388.—Dunglison, 1893a, 338, 710, 1174.—Eichwald, 1829a, 248.—Eiss, 1838a, 21.—Encycl. méthodique, Par., 1824, v. 2, 256-285.—Fabricius, 1794, 26; [1799a], 149.—Fil., 1837a, 337.—Fischer, 1840, 157.—Froriep, 1833, 428-432.—Gamb., 1896a, 73.—Goldb., [1855a], 17, 27.—Goto, 1891a, 158; 1893a, fig. 2.—Gunther, 1858, 205.—Gurlt, 1831, 370.—Hackley, (1886a), 518-519, figs. 880-885.—Hahn & Lefèvre, 1884a, 515-549; 1884, 806.—Hausmann, 1897b, 16.—Henle, 1835a, 597.—Herdmann, 1890, 617 (Distoma of Gærtner, 1890, 617, f. Distomidae of Ascidiae compositae).—Hoyle, 1890, 535, 539, 540.—Huber, 1896a, 574 (from *διότρομος*).—Jacoby, 1899c, 1-30, pls. 1-2, figs. 1-16; 1899d, 30 pp., 2 pls., figs. 1-16.—Jägers., 1901b, 979.—Joy, 1835a, 504.—Kajama & Nanba, 1892a, 32-36, 42-46 (Japan).—Kholodk., 1898a, 25, 26.—Knoch, 1862d, 19.—Kolenati, 1857, 11.—Kowal., 1895g, 1. 24 (41, 64); 1896g, 70, 71.—Kuech., 1855a, 182.—Lamouroux, 1824a, 559-563.—Leblond, 1836e; 1836f, 4.—Leidy, 1850a, 301-310, pl. 43, figs. 1-16 (2 species); 1884a, 47-48.—Leuck., 1863a, 451, 461, 524, 528-530; 1879, 136; 1886d, 7, 34, 35, 62, 67, 105, 117, 204, 715.—Linst., 1879a, 165-188.—Lint., 1901b, 408.—Looss, 1885a (2 species); 1885b, 56; 1892a, 126; 1893b, 816, 817, fig. 1; 1896b, in 1-252, 16 pls.; 1899b (divided into various genera), 533, 535, 536, 537, 538, 539, 540, 542, 543, 545, 546, 556, 658; 1901b, 191, 192, 193, 195, 196, 197, 200, 210; 1900d, 603; 1902m, 701, 719 (in ref. to Monost. prismaticum), 720, 732, 746, 750, 751, 752, 753, 756, 775, 795, 796, 812, 813 (as collective genus), 842, 865.—Meltzer, 1894a, 406-407, figs. 1-3; 1895a, 137.—Milner, 1858, 17.—de Miranda, (1903a), 137-139; 1904a, 280.—Miyake, 1894, 1-6, 1 pl.—Minarich, 1832, 13.—Moniez, 1896, 86, 89-90.—Mont., 1888 (thesis), 4, 7, 8, 9, 12, 22, 24, 31, 33, 38, 43, 50, 53, 54, 57, 64, 71, 83, 84, 89, 92, 104; 1889k, 132-134; 1889l, 612-613; 1892, 29; 1892, 687; 1892, Oct. 7, 189; 1893, 229, pl. 1; 1893, 427; 1894, Feb. 1, 16-21.—Moul., 1856a, 12, 15, 121.—Mueller, 1839, in 171-251, pls. 1-4.—Muller, 1850, 496.—Neumann, 1892, 345.—Nord., 1840, 544, 613, 614 (of Zed. syn. of Fasc.).—Odhn., 1902, 43.—Osborn, 1898, 301-310, figs. 1-4 (in Anodonta plana).—Perrier, 1903, 682.—Pontallié, 1853, 103-105 (2 species).—Pratt, 1900a, 645; 1902a, 889; 1902 (4 species).—Raf., 1815, 151 (of Zed. renamed Distomopsis).—Rail & Marotel, 1898, 37.—Rathke, 1799, 69.—Rawitz, 1893, v. 1, 1694-1697.—Rentsch, 1860, 14.—Rud., 1809, 6, pl. 5, figs. 1-3, pl. 6, figs. 7-8, 21-22, 37-38, 352; 1819, 92, 362-363.—Schneidemuehl, 1896,

DISTOMA—Continued.

- 295, 296.—Schneider, 1866, 334.—Seely, 1906, Apr., 249–254, figs. 1–3 (2 species).—Setti, 1897, in 50 pp., 2 pls.; 1897, in 198–247, 2 pls.; —, 49.—Shaw, 1901, 263, 809.—Sieb., 1836, 232–240 (as genus); 1854, 20, 29.—Simon, 1897, 259 (Distomi).—Sluiter, 1898, 1–64, pls. 1–7.—Sommer, 1880, 195–202, figs. 3–10; 1895, 116–123, figs. 15–22.—Sons., 1889, 276.—Staff., 1900, in 399–414 (5 species).—Steenstrup [1859, 167–170].—Stiles, 1901, 163, 164, 165, 172, 174, 194, 196; 1905z, 14.—Stiles & Hass., 1898a, 87, 88, 89.—Stoss., 1892, 42 pp.; 1892, 4, 5, 7, 12; 1898, 31; 1899, in 1–6, 1 pl.; 1903, 193–201; 1905, Jan. 31, 23.—Stowell, 1879, Jan., 85–93, pl. 9.—Tasch., 1879, 232, 233.—Valentin, 1811, 6.—Verrill, 1870, 172, 219, 220.—Veterinarian, Lond., 1897, v. 70, Oct., 522 (in the heart).—Villot, 1870, 9–13 (adults).—Vogt, 1878, 9.—Wagner, 1883, 120–122.—Ward, 1896, in 257–272, figs. 1–10.—Weltner, 1896, 199–200, 3 figs. (in Wasserjungfern).—Wolf, 1903, 610.—Zed., 1800a, 161–164.—Ztschr. f. Fleisch. u. Milchhyg., 1906, Nov., 66.
- , anatomy of: Baer, 1828f, 197–198 (anus).—Chatin, 1882d, 200–202 (muscles).—Crety, 1892d, 21–26, figs. 1–2 (suckers, tactile organs); 1893a, 380–384 (suckers, tactile organs).—Jackson, 1888, 643, 644.—Linst., 1873e, 95–108, pl. 5, figs. 1–6 (new species and female organs); 1873f, 231–232 (sexual organs).—Macé, 1882, 91 pp., 3 pls. (grande douve du foie).—Nardo, 1827, v. 1, 68–69 (anus).
- , biology of: Braun, 1890d, 568.—Brown, 1882b, 624–630 (liver-fluke).—Harms, 1891a, 249–250 (Aufnahme).—Pontallié, 1851, 217–219 (encysted adults).—Schauinsland, 1882, Nov. 25, 494–498, pls. 19–20 (embryology).—Wymann, 1851, v. 6, 65.
- , classification of: R. Bl., 1885a, 541; 1891p, 609–611.—Duj., 1845a.—Looss, 1899b, 521–784, pls. 24–32; 1900a, 390–401; 1900b, 458–466; 1901b; 1901c; 1901, Feb.—Luehe, 1899k, 524–539; 1900p, 305–306.—Mont., 1892, Oct. 7, 214.—Stiles & Hass., 1898a.
- , geographic distribution of: Billet, 1898a, 279–282, figs. 22–23 (Haut-Tonkin).—Cobbold, 1876h, 209–212 (Asia).—Johnston, 1901a, 334–338, pl. 22, figs. 1–4 (Australia); 1901b, 598 (Aust.); 1902a, 326–330, pl. 13, figs. 1–7 (Aust.); 1902b, (Aust.); 1903a, 899 (Aust.).—Linst., 1900a, 267–304 (in fish at Woods Hole); 1901a, 267–304 (Woods Hole); 1901b, 405–492 (Woods Hole); 1902a, 449–450 (Woods Hole).—Looss, 1900a, 390–401 (Egypt); 1900b, 458–466 (Egypt).—Mochizuki & Tsutsumi, 1899, Nov. 20, 13–24 (Shigaken).
- , in collections: Stoss, 1904, June 23, 1–14, pl. 2, figs. 1–3 (Naples); 1905, Jan. 31, 23–24 (Naples).
- , in various animals: Bavay, 1902a, 199–200, 1 fig. (sp. in *Rhizostoma cuvieri*); 1905, July. 63.—Heymann, 1905, 97–98, fig. B (*Kachuga tectum*).—Weltner, 1896, 199–200, 3 figs. (Libellulidae).
- , in amphibia: Groenouw, 1898a, 60–62, 1 fig., 85–92 (eye of *Rana esculenta*); 1903a, 65 (frog).—Guenther, 1853a, 95–99, pl. 1, figs. 1–6 (in *Rana temporaria*).—Klein, 1905, 59–80, pl. 5, figs. 1–8 (*Rana hexadactyla*); 1905, 24 pp. (R. hex.); 1906, Jan. 30, 41–42 (R. hex.).—Looss, 1894a, 296 pp., 192 figs. (and fish); 1894b.—Luehe, 1901p, 166–177 (Indian Anura); 1901q, 658 (Indian Anura).—Schellenberg, 1895, 170–171, figs. 1–2 (frog: muscle); 1895, Aug. 24, 183.—Staff., 1903, Oct. 21, 822–830, 1 pl., figs. 1–5 (Canadian Urodela); 1904, May 17, 281 (Canadian Urodela).—Stoss, 1889, v. 11, 60–74; 1889, Oct., 521; 1889, Nov. 8, 581–582.—Vallada (1882), v. 29, 35–39 (crustacea).—Vulpian, 1859, 150–152 (frogs); 1860, pl. 11, fig. 4.
- , in aves: Braun, 1899a, 1–4 (in *Porphyrion*).—Linst., 1906, 174 (in *Plotus melanogaster*).—de Miranda Ribeiro, 1903a, 137–139; 1904a, 280.—Nicoll, 1906, 515 (*Colymbus septentrionalis*).—Rail., 1890, 131 (pigeon).—Spencer, 1889, 109–110 (egg of fowl).—Stoss., 1892, v. 13 (2), 143–196; 1892, 54 pp.
- , in fishes: Ariola, 1899, 129–138 (marine).—Catois, 1897, xxxiii (meninges of *Gadus*).—Chavannes, 1851a, 210 (*Corregonus fera*).—Johnston, 1902a, 326–330 (*Pristiophorus cirratus*); 1905, July, 57 (Pr. cir.).—Kroyer, 1838–1840a, 612 (*Rhombus vulgaris*); 1843–1845a, 517 (*Cyclopterus lumpus*); 1852–53a, 745 (*Orthogoriscus mola*).—Linst., 1900a, 267–303; 1901a, 267–304; 1901b, 405–492; 1902a, 449–450; 1905, 349, 350, 353, 359, 360, 361, 364, 366, 372, 373, 374, 382, 385, 389, 393, 397, 402, 403, 404, 410, 413, 414, 415, 416, figs. 167, 168, 169, 171, 172, 173, 179, 198, 199, 205, 208, 209, 210, 213, 214, 215.—Looss, 1894a, 296 pp., 192 figs. (and frogs); 1894b, 706–711 (and frogs); 1901d, 398–405, 437–442, figs. 5–6 (Labriden; Triest).—Luehe, 1900w, 504–509 (gall-bladder;

DISTOMA—Continued.

- Mediterranean); 1900x, 792.—MacCallum, 1895, July, 401–412, figs. 1–8; 1895, 12 pp.—Mont., 1889k, 132–134; 1889l, Nov. 15, 612–613 (*Acanthias vulgaris*).—Schroeder, 1895, Oct. 26 (pike); 1896, Mar. 21, 426.—Ssnitzin, 1905, 210 pp., 6 pls., 9 figs. (and frogs: near Warschau); 1906, Nov. 13, 681–689 (and frogs: near Warschau).—Stoss., 1886, 66 pp.; 1888.—Tilesius, 1810, 335–375, 6 pls., 363–374, pl. 19, figs. 8–10 (*Gadus wachnia*).
- , in mollusks: Blochmann, 1892b, 649–652 (*Helix hortensis*).—Dies., 1850a, 298 (of Bojanus syn. of *Cerc. helici viviparæ* sp. inq.; in *Paludina vivipara*).—Dubois, 1903, 178–179 (in *Mytilus gallo-provincialis*).—Huet, —, 20 pp., 1 pl. (*Cardium edule*).—Leidy, 1847c, 220–221 (*Helix alternata*).—Osborn, 1898, 301–310, figs. 1–4 (*Anodonta plana*; Chautauqua, N. Y.).
- , in insects: Ruge, 1904, June 30, 520; 1904, 174–176; 1905, Apr. 15, 420 (*Anopheles maculipennis*).—Schoo, 1902, Feb. 8, 283–286, figs. 1–2 (in *Anoph. claviger*); 1902, June 17, 358–359; 1905, July 1, 63.
- , in mammalia: Braun, 1893e, 347–355 (cat); 1893f, 381–392, 422–428; 1894, 691–696; 1900f, 387–391 (Chiroptera).—Cobb, 1897a, 453–481, 1 pl., 26 figs. (sheep).—Duncker, 1881a, 23–25, 55, 154, 159–160; 1884a, 39–42 (muscle, hogs).—Erc., 1875a, 391–441, 1 pl., figs. 1–9 (dogs); 1875b, 88–91 (dogs); 1875c, 413–416 (dogs); 1875e, 33–40 (dogs); 1875f, 274–279 (dogs); 1875g, 254–255 (dogs); 1876a, 379 (dogs).—Galli-Valerio, 1893a, 173–182, pl. 2, figs. 1–6 (embolism, horse); 1895c, 266 (horse).—[Hoppen, 1881a, 39 (muscle, hog).]—Johnston, 1901a, 334–338, figs. 1–4 (*Platypus*); 1901b, 598.—Hutcheon, 1900i, 497 (*Duiker antelope*).—Katsurada & Saito, —, v. 39 (3), 506; 1906, Nov. 13, 2264 (*pancreas. cattle*).—Leuck., 1881b, 46 (muscle, hog).—Marchi, 1873, 304, pl. 5, fig. B (*Delphinus tursio*).—Meltzer, 1894a; 1895a (in lungs of cattle).—Morot, 1889, Jan. 30, 37 (calf).—von Ratz, 1893, 249 (horse).—Rec. d. méd. vét., Par., 1885, Jan. 15, 60–62 (pork).—Rivolta, 1884, v. 16, 20–28, pl. 1 (cat and dog).—Sons., 1895, 1157–1160 (*Carnivora*); 1896, v. 20, 709.—Stoss., 1892, 1–42.—Tright, 1885, Apr., 84–85 (dog).—Villot, 1875, 467 (*Delphinus delphis*).—Welsch, 1881, June 15, 97 (pork).—Willach, 1892, Apr., 131 (lungs, horse); 1892, 118–124 (horse); 1892, 239–241 (bull); 1893, Sept. 1, 289 (horse); 1893, v. 8 (6–7), 80 (cattle).
- , in man (*Homo*): Askanazy, 1904, May 28, 897; 1904, July, 210; 1904, July 1, 74–75.—R. Bl., 1888a, 631.—Braun, 1894i, 602–606.—Lanckester, 1857b, 433–437.—Mueller, 1842, v. 2, 559; 1842, 85 (foetus: spinal marrow).—Poir. 1888, v. 8.1, 49.—Sons., 1895, 1157–1160; 1896, v. 20, 709.—Tommasi (1881, fasc. II).—Valentin, 1840, 317–319 (foetus: spinal canal).
- , in reptiles: Heymann, 1905, v. 22 (1–2), 81–100, figs. 1–5 (*Chelonien*); 1905, 25 pp.; 1905, 96–97, fig. a (sp. in *Dermatemys mavii*); 1906, Jan. 30, 41.—Luehe, 1900aa, 555–566 (snakes and lizards); 1900bb, 928–930.—Sons., 1892 (*Zamenis viridiflavus*).—Stoss., 1895, v. 16, 213–239.—Voltz, 1899, Oct., 231–240, pl. 20 (snakes).
- , larvæ of: Calkins, 1901b, 8, 12.
- , new species of: Bell, 1887a, Feb., 116–117.—Cohn, 1902h, 877–882, figs. 1–5.—Erc., 1875a; 1875b; 1875g (in dogs).—Koelliker, 1849b.—Lopez, 1888a, 137–138.—Par., 1896, 1–19; 1896, Sept., 162–180, figs. 1–7.—Pratt, 1903, 23–38; 1905, Feb., 58.
- , reproduction of: Ben., 1858d, 858 (fertilization); 1858e, 159–160, 223–224; 1858h, 312–314.—Fielde, 1888a, 115.—Linst., 1904p, 252–254, figs. 1–4; 1906, Jan. 30, 42.—Ward, 1903, 864.
- , species of: Braun, 1892a, 761; 1893a, 826.—Lint., 1898, 540 (larva), pl. 53, figs. 12–13, pl. 54, fig. 1; 1898, 537–538, pl. 53, figs. 1–2; 1900, 269, 295, 296, pl. 39, figs. 71, 72–81.—Linst., 1906, 174.—Looss, 1899, 521.—Ssnitzin, 1904, 768, fig. c (n. g.).—Staff., 1902, 481.—Wedl, 1857, 247–248, pl. 1, fig. 8.—Weltner, 1896, 199–200.—Wolffhugel, 1900, 36.
- acanthocephalum* Stoss., 1887, 94, pl. 10, fig. 40 (in *Belone acus*; Triest).—Braun, 1892a, 583, 584, 736; 1893a, 874, 911.—Looss, 1899b, 578, 580 (to *Tergestia*).—Mont., 1893, 102.
- acanthoides* Rud., 1819a, 114, 415–416 (in *Phoca vitulina*; Berlin).—Braun, 1901e, 315–316.—Cobbold, 1860a, 33 to *Echinost.*; 1879, 313.—Dies., 1850a, 382.—Duj., 1845a, 424.—Stoss., 1892, 29 (to *Echinost.*).
- acervocalcaphorum* Erc., 1881e, 21 (for *acervocalciferum*); 1882a, 257.

DISTOMA—Continued.

- acervocalciferum* Gastaldi, 1854, 6-7, pl. 1, figs. 6-9 (in *Rana esculenta*).—Braun, 1893a, 870.—Cobbold, 1860a, 18.—Dies., 1858e, 340-341 (in *Pelophylax esculentus*).—Linst., 1875, 193.—Rizzo, 1902, 29-30, fig. 2 (in *Tropidonotus natrix*).—Stoss., 1889, 68.
- acervocalciferum* *ranæ esculentæ* Gastaldi, see Dies., 1855, 64, footnote 11.
- acervocalcoforum* Linst., 1875a, 193 (for *acervocalciferum*).
- acervocalcophorum* Erc., 1881e, 20; 1882a, 256 (for *acervocalciferum*).
- actæonis* Pag., 1862, 306, pl. 29, fig. 5a (in *Acteon viridis*; Cetto).
- aculeatum* Nitzsch, in Giebel, 1857, 266 (in *Strix bubo*).—Braun, 1901a, 14.—Stoss., 1892, 177 (in *Bubo maximus*).
- acutum* Leuck., 1842, 33-34, pl. 1, figs. 7a-b (in *Mustela putorius*).—Braun, 1893a, 877, 881; 1893d, 467; 1901e, 324.—Cobbold, 1860a, 8 (November).—Dies., 1850a, 364.—Duj., 1845a, 439.—Moniez, 1890e, Mar. 1, 242; 1890f, 1; 1890g, Apr. 29, 542-543.—Stoss., 1892, 34 (in *Putorius communis*).
- [*adriaticum* von Dr., a tunicate.]
- aduncum* Lint., 1905, 327, 333, 409, figs. 195-197 (in *Opsanus tau*; Beaufort, S. C.).
- advena* (Duj., 1843) Braun, 1892a, 772 [type of *Brachylaima* 1843]; 1893a, 831, 864, 880, 894.—Gamb., 1896a, 71.—Reported for *Sorex araneus*, *Limax*.
- æglegini* Ben., 1870, 57.—Braun, 1892a, 728, 734, 759.—Linst., 1873e, 99.—Mont., 1893, 193.—Reported for *Gadus euxinus*, *G. æglefinus*, *G. morrhua*, *Merlangus vulgaris*.—[See also next entry.]
- æglegini* (Mueller, 1776) Zed., 1803a, 211 (in *Gadus æglefinus*; int.).—Dies., 1850a, 343 [syn. of *D. simplex* Rud.].—Nicoll, 1907, 73.—Rud., 1809a, 370 (renamed *D. simplex*).—[Type of *Sinistroporus*, 1904.]
- ægyptiacum* Looss, 1896b, 33-36, 192, 196, pl. 3, fig. 16, pl. 11, figs. 117-118 (to Fasc.).
- æquale* Duj., 1845a, 410 (in *Strix flammea*) to (*Brachylaimus*).—Braun, 1892a, 767; 1901e, 341.—Cobbold, 1859d, 365 (in *Strix perlata*); 1860a, 14 (in *S. perlata*); 1861, 118; 1879, 447.—Dies., 1850a, 363.—Looss, 1899, 650 (perhaps a *Clinost.*).—Mont., 1893, 155.—Stoss., 1892, 174 (to *Mesogonimus*).
- affine* Dies., 1850a, 359 (in *Lampris guttatus*; Groningæ) [nec Rud., 1819a], 680 (renamed *dicorynum*) (Monost. *tenuicolle* Rud., 1819, renamed [not *Dist. tenuicolle* Rud., 1819a]); 1859c, 430.
- affine* Rud., 1819a, 110, 406 (in *Perca cirrosa*; Arimini) [nec Dies., 1850a] (to *Dero-genes*).—Baird, 1853a, 54 (*D. appendiculatum* Rud.?).—Carus, 1884, 131.—Cobbold, 1860a, 27 (in *Scorpena cirrhosa*).—Dies., 1850a, 371 [nec Dies., 1850a, 359].—Luehe, 1901, 479.—Odhn., 1905, 364.—Stoss., 1886, 44.—Wagener, 1860, 190 (in *Perca cirrhosa*).
- agamos* Linst., 1872, 1-5, pl. 1, figs. a-c (in *Gammarus pulex*); 1877, 185; 1878a, 315 (in *Gam. pulex* L.).—Jackson, 1888, 648 (in *G. p.*), 652.—Looss, 1885b, 36; 1894, 175.
- alacre* Looss, 1901, 401-402, 403, fig. 2 (in *Labrus maculatus*, *L. merula*, *Crenilabrus pavo*, *C. quinquemaculatus*, *C. griseus*).
- alatum* (Gœze, 1782) Zed., 1800a, 177-180; 1803a, 213.—Anacker, 1892c, 94.—Blainv., 1824a, 519 (a holostome).—Brand., 1888a, 9, 60 (to *Hemist.*).—Crep., 1829, 66-67; 1837, 310; 1839, 287.—Dies., 1850a, 308 (to *Hemist.*).—Fischer, 1840, 158.—Gurtl, 1831, 375-376, pl. 8, figs. 39-40.—Lamouroux, 1822a, 194; 1824a, 563 (*Distome ailé*).—Mehlis, 1831, col. 184.—Nitzsch, 1819, 399 (to *Holost.*).—Nord., 1840, 628 (*Holost. alatum*).—Olfers, 1816, 46.—Rud., 1809a, 400, 402-404 (includes *Plan. alata* Gœze, 1782; *Alaria vulpis* Schrank, 1788 [type of *Alaria*]; *Fasc. vulpis* Gmelin, 1790; *Dist. vulpina* Abild., 1790; *Festucaria alata* Schrank, 1790; *Fasc. alata* Rud., 1793); 1819a, 112, 412-413.—Also reported for *Canis lupus* and *C. vulpes*.
- albicolle* Rud., 1819a, 98-99, 376-377 (in *Falco pennatus*; Mus. Vien.).—Braun, 1893a, 875; 1901, 561, 562; 1902b, 99 (to *Dicrocoelium*).—Bremser, 1824, pl. 9, figs. 3-4.—Cobbold, 1860a, 12.—Crep., 1837, 310.—Dies., 1850a, 348.—Duj., 1845a, 393.—Rail., 1900, 239, 240.—Stoss., 1892, 156 (*D. macrourum* Rud.).—Also reported for *Aquila pennata*.
- albidum* Braun, 1893e, 347-355 (to *Dicrocoelium*) (in *Felis domestica*); 1893f, 390, 391, 392, 424, 427, fig. 2; 1894g, 129; 1894i, 606; 1895b, 151.—Askanazy, 1900b, 498, 501; 1901, 72; 1906, 128 (in cats fed on fish; intermediate host).—de Jong, 1896a, 3, 4.—Looss, 1899b, 564-565 (type of *Metorchis*), 677.—

DISTOMA—Continued.

- Moniez, 1896, 139, 140.—Mueh., 1898, 15, 23 (in *Halichoerus grypus*), 87, 88, 89 (cf. *D. crassiusculum*).—Ratz, 1900, 141.—Stiles & Hass., 1894e, 424–425, pl. 1, figs. 1–2.—Ward, 1895, 341.
- alboceruleum* Stoss., 1889, 28–29 (in *Sargus salviani*; Trieste); 1898, 37.
- album* Stoss., 1890, 42, pl. 16, fig. 73 (in *Cantharus orbicularis*; Trieste); 1898, 49; 1901, 94.—Braun, 1891d, 424 (in *C. orb.*).—Looss, 1899, 571 (may belong to *Creadiinae*, possibly to *Creadium*).—Mont., 1893, 85, 86, 94, 102.—Odhn., 1905, 328.—Also reported for *Cantharus vulgaris*.
- allostomum* Dies., 1850a, 367 (in *Tropidonotus natrix* var.) (includes *D. colubri murorum* Rud., 1819a).—Braun, 1893a, 863.—Cobbold, 1860a, 20.—Erc., 1881e, 67, 68, 69, 70, 73; 1882a, 303, 304, 305, 306, 309 (larva in *Helix carthusianella*).—Mont., 1893, 187.—Par., 1894, 147.—Stoss., 1895, 229.—Also reported for *Natrix torquata*, *Tropidonotus viperinus*.
- aloyisia* Stoss., 1885, 161, pl. 6, fig. 28 (in *Corvina nigra*; Trieste); 1886; 24; 1898, 56; 1899, 15.—Braun, 1892a, 567, 663, 737, 1902b, 31.—Looss, 1899, 581.
- altemon* Ben., 1870, 48, for atomon.
- aluconis intestinale* Rud., 1819a, 119 (in *Strix aluco*).—Dies., 1850a, 396.—Duj., 1845a, 442.—Stoss., 1892, 173, syn. of *Echinost. apiculatum* (Rud.) Cobbold.
- aluconis thoracicum* Rud., 1819a, 119 (in *Strix aluco*).—Dies., 1850a, 396.—Duj., 1845a, 442.—Stoss., 1892, 177.
- americanum* (Hass., 1891) Stiles, 1892e, 148; 1892f; 1892g, 732–733; 1898a, 51 (syn. of *Fasc. magna*).
- amphileucum* Looss, 1896b, 55–60, pl. 4, figs. 31–35 (in *Naja haje*; Alexandria, Egypt); 1899b, 565 (to *Metorchis*).
- amphiorchis* Braun, 1899b, 719 (in *Thalassochelys corticata* at Trieste; *Chelone mydas*; *Podocnemis expansa*); 1899e, 629; 1901b, 20, 36.—Looss, 1899b, 568, 569 (type of *Anadasmus*); 1902, 463 (to *Orchidasma*).
- amphistoma* Nord., 1840, 616 [probably lapsus].
- amphistomoides* Bojanus, 1817b, 270–277, pl. 9, figs. 1–6 (in *Castor fiber*) (*Dystoma*).—Baird, 1853a, 43 (= *Amphist. subtriquetrum* Rud.).—Dies., 1836, 248; 1850a, 402 (syn. of *Amphist. subtr.*).—Fischder., 1902a, 42 (syn. of *Cladorchis* (*Stichorchis*) *subtriquetrus*).
- ampullaceum* Buttel-Reepen, 1900a, 586–596, 597, 598, figs. 1–7 (in Cetacean; Indian Ocean); 1902, Dec. 8, in 165–236; 1902, pl. 6, fig. 25; pls. 7–10, figs. 27–53; text figs. b–g; 1904, Jan. 26, 24–25; 1905, July, in 52–53.—Darr, 1902, 698.
- anarrhichæ* Jacoby, 1900, 13, see *anarrhichæ*.
- anarrhichæ* Rud., 1819a, 121–122 (*D. anarrhichæ lupi* Rathke, from intestine, renamed).—Dies., 1850a, 398 (possibly syn. of *D. appendiculatum*).
- anarrhichæ lupi* Rathke, 1799, 70, 146, pl. 2, figs. 3, a, b (in *Anarrhichas lupus*).—Dies., 1850a, 339, from stomach (syn. of *D. incisum* Rud.).—Jacoby, 1900, 12.—Rud., 1809a, 361, from stomach (syn. of *D. incisum*), 435–436 (see *anarrhichæ*).
- anatis* (Schrank, 1788) Zed., 1800a, xvii, 164, 196–198.—Dies., 1850a, 383 (syn. of *D. echinatum* Zed.).—Looss, 1899b, 680.—Rud., 1809a, 418 (syn. of *D. echinatum* Zed.).
- anatis domesticæ* Rud., 1809a, 431–432 (*Hirudo fasciolaris* Mueller, *Fasc. anatis* Bruguière, 1791, renamed); 1819a, 121.—Dies., 1850a, 335 (syn. of *D. ovatum* Rud.).
- anatis fusca* Viborg, 1795, 243 (at Copenhagen).—Dies., 1850a, 397–398.—Duj., 1845a, 450.—Knoch, 1862e, 104.—Rud., 1809a, 431; 1819a, 120–121.—Stoss., 1892, 167, syn. of *Echinost. echinatum* (Zed.) Cobbold.
- anceolatum* Braun, 1892a, 677 (for *lanceolatum*).
- anceps* Mol., 1859, 845–846 (in *Fulica atra*; Padua).—Stoss., 1892, 168 (to *Echinost.*).
- ancyli lacustris* Dies., 1855a, 400 (to *Cercariæum*), based on Baer, 1827b, 656 (in *Ancyclus lacustris*).
- andersoni* Cobbold, 1876, 46, pl. 10, fig. 3 (in *Platanista gangetica*); 1879, 420.—Linst., 1886, 125.—Stoss., 1892, 19 (to *Brachylaimus*).
- anguillæ* (Gmelin, 1790) Zed., 1803a, 222, in *Anguilla*.—Dies., 1850a, 340 (=? *D. polymorphum* Rud.).—Nord., 1840, 618 (to *Fasc.*).—Rud., 1809a, 363 (syn. of

DISTOMA—Continued.

- D. polymorphum*; 1814a, 101; 1819a, 369 (of Abildgaard, as ? syn. of *D. polymorphum*).—Thompson, 1844, 439 (in *Anguilla conger*).
- anguillulæ* Dies., 1850a, 340 (syn. of *D. polymorphum*), lapsus for *anguillæ*.
- anguis* Linst., 1885, 250–251, pl. 15, fig. 27 (in *Anguis fragilis*).—Braun, 1892a, 642, 663, 693.
- angulatum* Duj., 1845a, 401–402 to (Podocotyle [type]) (in *anguille*) [not Fasc. *angulata* Mueller, 1776].—Braun, 1893a, 910.—Cobbold, 1860a, 29 (in *Anguilla vulgaris*).—Dies., 1850a, 379.—Kroyer, 1846–1853a, 641 (in *Ang. migratoria*).—Looss, 1902m, 757, 770, 771 (possibly only one testicle), 772, 827 (type of Podocotyle).—Luehe, 1900, 487, 491, 492.—Odhn., 1905, 320, 321 (syn. of *Pod. atomon*).—Stiles, 1901r, 193.—Stiles & Hass., 1898a, 92, 93, 97 (type of *Pod.*).—Stoss., 1886, 17; 1902, 582.
- angusticollæ* Hausmann, 1896a, 391–392 (in *Cottus gobio*; Basel); 1897b, 4, 6, 20, 22, 24–29, 31, pl. 1, figs. 1–3.—Looss, 1899b, 571 (to *Creadium*: possibly identical with *D. commune* Olss., 1868, 31).—Odhn., 1901, 483, 502.
- angustum* Staff., 1900, 407–408, fig. 6 (in *Chrysemys picta*).
- aniarum* Leidy, 1891a, 414 (in *Tropidonotus sipedon*).
- annulatum* Dies., 1850a, 386–387 (in *Gymnotus electricus*; Brazil); 1855, 67–68, pl. 3, figs. 18–21; 1858e, 347.—Braun, 1892a, 571, 584.—Cobbold, 1860a, 36 (to *Echinost.*).—Looss, 1899b, 595.—Mont., 1888a, 14.—Stoss., 1886, 36.
- annuligerum* Nord., 1832a, 43, 53–54, 55, 102, pl. 1, figs. 4–10 (in *Flussbarsch*).—Braun, 1893a, 871.—Cobbold, 1860a, 28; 1879, 458.—Crep., 1837, 310, 313, 326.—Dies., 1850a, 377.—Duj., 1845a, 455.—Gescheidt, 1833a, 431.—Kroyer, 1838–1840a, 21 (in *Perca fluviatilis*).—Leuck., 1863a, 526.—Moul., 1856, 218–219 (in eye of perch).—Steenstrup, 1842, 59.—Stoss., 1886, 44 to (*Brachylaimus*).
- anonymum* Dies., 1858e, 341 (in *Gadus æglefinus*, *G. euxinus*, *Merlangus vulgaris*, *M. carbonarius*; Ireland) (includes *D. Gadi æglefini*, *Merlangi vulgaris*, et *M. carbonarii* based on Bellingham, 1844a, 428).—Cobbold, 1860a, 25.—Stoss., 1886, 45.
- anthos* Braun, 1899b, 720 (in *Chelonias*; Yedo); 1901b, 27–29, 33, figs. 20–22, 24, 31.—Looss, 1899b, 575 (appears to be closely related to *Echinost.*); 1901l, 565, 566; 1902m, 458, 462 (type of *Calycodes*).
- apertum* Rud., 1819a, 108, 400–401, 779 (in *Apogon ruber* = *Mullus imberbis*; Naples).—Cobbold, 1860a, 27.—Dies., 1850a, 370.—Duj., 1845a, 422 to (*Apoblema*).—Mont., 1891, 522.—Stoss., 1886, 45.—Wagener, 1860, 189 (in *Mullus imberbe*).
- apiculatum* (Rud., 1803) Rud., 1809a, 423, to (*Echinost.*) includes *D. stridulæ*, 1801 (in *Strix stridula*, *S. flammea*); 1819a, 116, 119.—Braun, 1893a, 874.—Cobbold, 1860a, 35 (to *Echinost.*) (in *Strix aluco*, *S. flammea*).—Crep., 1837, 311.—Dies., 1850a, 386 (in *Strix aluco*, *S. flammea*; *Gryphæ*).—Duj., 1845a, 425–426.—Giebel, 1857, 266.—Looss, 1899, 703.—Olfers, 1816, 46.—Stoss., 1892, 173 (to *Echinost.*).
- apodis* Packard, 1882, 142, fig. 1 (in egg sacks of *Apus*).
- apolaimum* Heymann, 1905, Mat. 25, 91–94, pl. 6, figs. 4–5 (in *Kachuga tectum* (Gray), small intestine); *λαίμος*, Schlund.
- appendiculata* Leidy, 1877, 202 (in *Helix arborea*) [nec Rud., 1802]; 1891a, 416 (syn. of *D. centrappendiculatum*).
- appendiculatum* (Rud., 1802) Rud., 1808a, xxiv [descr. of pls.], pl. 5, fig. 2 [nec Frœlich, 1802]; 1809a, 387, 400–401, 405, 407, 438, pl. 5, fig. 2; 1819a, 110, 122, 404–406.—Baird, 1853a, 54.—Bellingham, 1844a, 425.—Ben., 1858a, 1861a, 178, 189; 1870, 16, 30, 66.—Braun, 1891d, 423 to (*Apoblema*); 1892a, 705; 1893a, 853, 864, 879, 911; 1893d, 468; 1902b, 124.—Cobbold, 1858b, 158; 1860a, 20.—Crep., 1837, 310, 313, 326; 1839a, 288.—Dies., 1850a, 342, 370–371, 398 (includes *Apoblema* ap. Bl., Fasc. *alose* Hermann, *F. clupeæ* Schrank, *F. ap. Rud.*, *F. crenata* Rud., Dist. *clupeæ* Zed., *D. clupeæ* rhénane Rud., *D. crenatum* Rud., *D. varium* Eysenhardt); 1858d, 268 (larva *Histriionella echinocerca* Dies.); 1858e, 342 (in *Acipenser sturio*, *Ammodytes lancea*); 1859c, 431–432.—Duj., 1845a, 420–421 to (*Apoblema*).—Fil., 1855b, 19.—Fraip., 1880b, 106; 1881b, 4.—Gamb., 1896a, 71.—Hausmann, 1897b, 4, 6, 20, 22, 38–39, pl. 1, figs. 11–12 (in *Trutta salar*).—Johnstone, 1907, 180–182, fig. 14 (in *Gadus merlangus*; Shoals).—Juel, 1889, 4, 7.—Kroyer, 1838–

DISTOMA—Continued.

- 1840a, 187, 578, 582, 583, 595, 605, 609, 611; 1843-1845a, 444, 488, 581; 1846-1853a, 218, 253, 641; 1852-1853a, 778, 1219 (in *Gasterosteus aculeatus* L., *Perca fluviatilis* Linn., *Trigla hirundo* Linn., *Cottus scorpius* Linn., *Scomber scombrus* Linn., *Gadus morrhua* Linn., *Lota vulgaris* Cuv., *Platessa flesus* Linn., *Rhombus maximus* Linn., *Solea vulgaris* Cuv., *Salmo salar* Linn., *Alosa finta* Cuv., *Esox lucius* Linn., *Anguilla migratoria* Kroyer, *Acipenser sturio* Linn., *Clupea harengus* Linn.)—Lander, 1904a, 14, to (*Hemimurus*).—Leuck., 1863a, 453, 454, 481.—Levin., 1881a, 9, 58-59, 59 (Rud. of Olsson, 46, syn. of D. a. Rud. Mol.). 61, 64 (includes D. ventricosum Wagener, D. ap. Rud. of Olsson) (in *Cottus scorpius*, *Gadus ovak*).—Linst., 1903, 354.—Lint., 1900, 269, 283, 289, pl. 36, figs. 25-26; 1901, 408, 415, 418, 437, 439, 440, 445, 449, 459, 460, 467, 471, 475, 478, 482, 486, 487, figs. 312-314; 1905, 328, 333, 352, 365, 374, 378, 382, 393, 404, 405, 415, figs. 152, 153, 160 (in *Brevortia tyrannus*, *Caranx hippos*, *Coryphæna equisetis*, *Lagodon rhomboides*, *Leiostomus xanthurus*, *Lophopsetta maculata*, *Orthopristis chrysopterus*, *Prionotus scitulus*, *P. tribulus*).—Looss, 1894a, 204; 1899b, 640 (type of *Hemimurus*).—Luehe, 1901n, 394, 396, 397, 398, 399, 401.—Mayer, 1841a, 17-18, pl. 3, fig. 12.—Mol., 1858, 289 (in *Alausa vulgaris*; Patavii); 1859, 825-826 (in *Anguilla vulgaris*; Padua); 1861, 204-205, pl. 2, fig. 3.—Mont., 1888, 17, 38, 43; 1888a, 198; 1891, 9 (to *Apoblema*); 1891, 496, 497, 498, 499, 500, 501, 502, 522 (to *Apoblema*); 1893, 123.—Nicoll, 1906, 525.—Olfers, 1816, 46.—Olss., 1868, 46; 1876, 20; 1893, 11.—Sieb., 1842, 365.—Staff., 1902, 895.—Stiles & Hass., 1898a, 90.—Stoss., 1883, 115; 1885, 159; 1886, 47; 1886, 13; 1887, 90; 1887, 184; 1890, 40; 1902, 582.—Wagener, 1860, v. 1, 165-190, pls. 8-9.—Will.-Suhm., 1871 (3), 25 July, 380-396.—Reported also for *Accipenser sturio*, *Achirus fasciatus*, *Alausa finta*, *A. vulgaris*, *Alosa vulgaris*, *Anguilla vulgaris*, *Brosmius brosme*, *Capros aper*, *Centropages hamatus*, *Citharus linguatula*, *Clupanodon pseudohispanicus*, *Clupea alba*, *C. sprattus*, *Coregonus oxyrrhynchus*, *Cottus bubalis*, *Cynoscion regalis*, *Decapterus macarellus*, *Gadus æglefinus*, *G. callarias*, *G. euxinus*, *G. melanostomus*, *G. minutus*, *G. morrhua*, *G. ovak*, *G. polachius*, *G. virens*, *Gobius jozo*, *Hippoglossus maximus*, *Labrax lupus*, *Lichia amia*, *Lophius piscatorius*, *Lota molva*, *Lucullus acuspes*, *Merlangus pollachius*, *M. vulgaris*, *Microgadus tomcod*, *Molva vulgaris*, *Myxocephalus æneus*, *Paralichthys dentatus*, *Pomolobus mediocris*, *P. pseudoharengus*, *Prionotus carolinus*, *Pseudopleuronectes americanus*, *Saurus griseus*, *S. lacerta*, *S. saurus*, *Stenotomus chrysops*, *Stenotomus brownii*, *Torpedo marmorata*, *Trachurops crumenophthalmus*, *Urophycis chuss*.
- appendiculatum* Rud., 1819a, 404, e. p.—Odh., 1905, 352 (syn. of *Brachyphallus crenatus*).
- appendiculatum* Rud. of Olss., 1868.—Levin., 1881, 59 (p. 46 Olss., syn. of D. a., Rud. of Mol.).—Odh., 1905, 348 (syn. of *Hemimurus leviseni*; includes D. a. "(e. p. ?) Levin., 1881, 58"). 351 (Olss., 1868, pl. 5, fig. 95, syn. of *Hemimurus communis* Odh.; includes also D. a. Juel, 1889), 352 (Olss., 1868, e. p., syn. of *Hemimurus lühei* Odh.).
- aquilæ* Leidy, 1887b, 24 (in *Haliaëtus leucocephalus*); 1904a, 197.—Braun, 1893a, 876; 1900h, 16, 42.—MacCallum, 1899, 706, 707.—Stiles & Hass., 1894, 414.
- arcantum* Nickerson, 1900, Oct., 811-815, fig. 1 (in frogs).—Staff., 1902, 482, to (*Pleurogenes*) (includes D. medians Olss., of Staff., 1900); 1902, 724; 1905, Apr. 11, 683 (type of *Loxogenes*).
- arcuatum* Duj., 1845a, 410-411 (in *Corvus glandarius*; Rennes) to (*Brachylaimus*).—Braun, 1901e, 341.—Cobbold, 1860a, 15.—Dies., 1850a, 389.—Looss, 1899b, 703.—Stoss., 1892, 151.—Wolffhüegel, 1900, 9, 24, 37, 38, 39, 40, 41, 42.—Reported also for *Corvus corone*, *Garrulus glandarius*.
- ardæ* (Gmelin, 1790) Zed., 1803a, 222.—Dies., 1850a, 388 (syn. of D. ferox Zed.).—Rud., 1809a, 432.
- ardæ minutæ* Pontallié (1853), to (*Cladocalium*).—Dies., 1855, 64, foot-note 5, to (*Cladocalium*).
- ardæ nigræ* Viborg, 1795, see Rud., 1809a, index (D. hians Rud.).
- ardæ stellaris* Rud., 1809a, 432-433 (Fasc. *ardæ* Gmelin, 1790, renamed); 1819a, 120.—Dies., 1850a, 388 (syn. of D. ferox Zed.).—Duj., 1845a, 447.—Stoss., 1892, 165, syn. of *Echinost. ferox* (Rud.).
- arenula* Crep., 1825a, 53-54 (in *Fulica atra*); 1837, 317.—Braun, 1902b, 155, 156, 157, fig. 99.—Cobbold, 1860a, 15.—Dies., 1850a, 364-365.—Duj., 1845a, 447.—Linst., 1887, 104.—Stoss., 1892, 177.

DISTOMA—Continued.

- areolatum* Rud., 1809a, 50, 401–402 (Fasc. platessæ Mueller, D. platessæ Zed.) (in Pleuronectes platessa); 1819a, 111, 408–409.—Carus, 1884, 126.—Cobbold, 1860a, 26.—Dies., 1850a, 352 (Fasc. platessæ Mueller, 52, pl. 78, figs. 1–5; D. platessæ Zed.).—Duj., 1845a, 467.—Kroyer, 1843–1845a, 275 (in Platessa vulgaris Cuv.).—Lint., 1900, 269, 279, 293–294, pl. 39, figs. 60–63; 1901, 415 (in Morone americana, Pseudopleuronectes americanus, Tautoglabrus adspersus), 422, 456, 462, 486; 1905, 328, 334, 379, 389, 391, 396 (in Bairdiella chrysura, Micropogon undulatus, Orthopristis chrysopterus, Sciaenops ocellatus).—Mont., 1893, 193.—Olfers, 1816, 46.—Stoss., 1886, 43, 60 to (Echinost.).—Wagener, 1860, 185.
- aristotelis* Stoss., 1892, 14–15 (D. chilostomum Mehlis of Ben., 1873b) (in Rhinolophus hippocrepis, Vespertilio murinus, V. desyncneme, V. daubentonii, V. emarginatus, V. mystacinus, Nannugo pipistrellus).—[Ben., 1873, 27.]—Braun, 1900, 221, 223, 388.—Stoss., 1892, 14, to (Brachylaimus).
- armatissimum* Linst., 1903, 280, fig. 15 (in Iguana sp.).
- armatum* (Rud., 1793) Zed., 1803a, 220.—Caruccio, 1886, 293.—Dies., 1850a, 382 (syn. of D. trigonocephalum Rud.).—Rud., 1809a, 416.—Stoss., 1892, 167 (Echinost. echinatum (Zed.) Cobbold).
- armatum* Mol., 1858, 130 [nec (Rud., 1793) Zed., 1803] (in Phasianus gallus; Pata-vii); 1861, 217.—Anacker, 1887c, 513 (in Gallus dom.).—Braun, 1893a, 874 (in Gallus dom.).—Dies., 1858e, 347.—Hass., 1896a, 2, 3 (syn. of Echinost. echinatum (Zed.)).—Landois, 1882, 23.—Schneidemuehl, 1896, 303 (in chickens).—Sons., 1889, 11 (in Gallina).—Stoss., 1898, 52.
- armatum* MacCallum, 1895, 401 (as variety of D. isoporum).
- armatum paludinæ impuræ* Fil., 1857c, pl. 2, figs. 14, 15 [doubtless equals D. paludinæ impuræ armatum].
- arrectum* Duj., 1845a, 403 (in Lézard vert), to (Brachycœlium).—Cobbold, 1860a, 20.—Dies., 1850a, 389–390 (in Lacerta viridis; Rhedoni).—Linst., 1873, 101; 1879, 185.—Looss, 1899b, 567, 568, 611, 614; 1902m, 816.—Luehe, 1899k, 536.—Mol., 1859, 831–833 (in Lacerta viridis, Rhedoni; Podarcis muralis, Padua).—Par., 1894, 147.—Stiles, 1901r, 197, 199, 201.—Stoss., 1895, 225–226.—Also reported for Lacerta muralis.
- arrectum* of Mol. [1859, 831–833], and of Stoss. [1895, 225–226], are, according to Looss, 1899b, 567–568, probably misdeterminations. Molin's form apparently belongs in Telorchis.—Braun, 1901a, 13.—Luehe, 1899, 530.
- ascidia* Rud., 1819a, 108, 399–400 [nec Ben., 1873] (in Sparus boops, S. pagrus; Arimini and Naples).—Barbagallo & Drago, 1903, 410, to (Brachylaimus) (in Box boops, Pagrus vulgaris; Catania).—Carus, 1884, 130.—Dies., 1850a, 369 (in Box vulgaris, Pagrus vulg.; Armini and Naples).—Duj., 1845a, 458.—Looss, 1899b, 609.—Stoss., 1886, 45; 1898, 41.
- ascidia* Ben., 1873c, 328–329 (see D. lagena Brand.) [nec Rud., 1819a].—Brand., 1889b, 249, 250.—Braun, 1892a, 577, 618, 642, 663; 1893a, 864; 1900, 388; 1900b, 221, 223, 224, 225.—Cobbold, 1879b, 294.—Gamb., 1896a, 71.—Kowal., 1894, 2.—Linst., 1884, 140, fig. 25; 1885, 248–249; 1887, 102–103, pl. 2, figs. 4, 17i (in Vesperugo nathusii) (includes Cerc. armata Sieb.).—Looss, 1894a, 2, 125, 127, 167, 168, 181, 184, 185, 186, 212, 270, 275, pl. 3, fig. 52, pl. 4, figs. 72–73; 1896b, 86; 1898, 453, 454, 455, 457, 458, fig. 1, ii; 1899, 547, 556, 609 (type of Lecithodendrium), 610, 613, 618, 718.—Luehe, 1899, 536.—Macé, 1881, 421, in Vespertilio murinus; 1882, 62.—Stiles, 1901r, 200.—Stoss., 1892, 21 (in Plecotus auritus, Rhinolophus hippocrepis, Vespertilio dasychneme, V. daubentonii, V. murinus, V. mystacinus, Vesperugo nathusi, Vesperus serotinus, Nannugo pipistrellus).—Also reported for Rhinolophus ferrum equinum, R. hipposideros, Limnæa stagnalis, Planorbis corneus, Ephemera, Perla, Chironomus plumosus.
- ascidioides* Ben., 1873, 332 (in Vesperugo noctula).—R. Bl., 1891, 467.—Braun, 1892a, 579; 1893b, 185 (in Vespertilio murinus); 1900, 221, 222; 1900, 388.—Cobbold, 1879b, 294.—Linst., 1885, 249–250; 1887, 103 (in Rhinolophus hipposideros).—Looss, 1894a, 2, 167, 168, 181, 182, 184, 185, 210, 211, 212, 275, pl. 3, fig. 51; 1896b, 86; 1898a, 453, 454, 455, 457, 458, fig. 1, i; 1899b, 547, 609, 610 (to Lecithodendrium).—Mont., 1892, 712.—Staff., 1902, 483 (in Vespertilio subulatus) to (Lecith.); 1905, Apr. 11, 692 (syn. of Lecith. chilostomum Mehlis).—Stiles, 1901, 200.—Stoss., 1892, 16 (in Rhinolophus hippocrepis, in Belgio; Vesperugo noctula; Vespertilio murinus; in Clarte-Dieu, Francia; Vesperus serotinus).

DISTOMA—Continued.

- ascoidea* Leidy, 1877e, 201 (in *Planorbis parvus*) to (*Gymnocephala*); 1904a, 144.—Linst., 1889a, 122 (ascoideum).
- asperum* Wright, 1879, 57–58, pl. 1, figs. 3–5 (in *Ardea minor*).—Braun, 1892a, 583.—Mont., 1893, 94.—Stoss., 1892, 164 (to *Echinost.*).
- aspidophori* Ben., 1870, 34, pl. 4, fig. 16 (in *Aspidophorus europæus*).—Braun, 1892a, 643.—Stoss., 1886, 45.
- assula* Duj., 1845a, 398 (in *Coluber natrix*; Toulouse) to (*Dicrocoelium*).—Cobbold, 1860a, 20.—Dies., 1850a, 390.—Erc., 1881e, 78; 1882a, 314 (from *Tropidonoton*).—Kampmann, 1894b, 454.—Linst., 1879, 184.—Mont., 1893, 187, 188, 189.—Par., —, 147.—Stoss., 1895, 222.—Volz, 1899, 235, 237.
- atomon* (Rud., 1802) Rud., 1809a, 362–363 (in *Pleuronectes flesus*); 1810a, 328; 1819a, 95.—Ben., 1870, 48 (*D. altemon*).—Braun, 1892a, 763, 764, 766; 1893a, 873.—Carus, 1884, 132.—Cobbold, 1858b, 160–161, pl. 32, figs. 30–32 (in *Hippoglossus vulgaris*); 1860a, 30.—Dies., 1850a, 340 (in *Platessa flesus*; Gryphæ); 1859c, 427–428.—Duj., 1845a, 466–467.—Kroyer, 1843–1845a, 297 (in *Platessa flesus*).—Linst., 1878, 225, fig. 7.—Mol., 1858, 288 (in *Platessa passer*; Patavii); 1859, 828; (in *Platessa passer*; Padua); 1861, 199.—Mont., 1893, 193.—Nicoll, 1907, 73 (to *Podocotyle*).—Odhn., 1901, 484, 485, 499, 502, 503, 506, 507, 508, 509, 511, 512, 513, 514; 1905, 320, 321 (to *Podocotyle*).—Olfers, 1816, 45.—Olss., 1868, 30.—Stiles & Hass., 1898a, 95.—Stoss., 1886, 33 (in *Anarrhichas lupus*); 1887, 185, 186; 1898, 47–48.—Wagener, 1860, 183, 188.
- atriventre* Weinland, 1856, 24 (in *Physa heterostrophæ*).—Braun, 1893a, 865.—Gamb., 1896a, 71.
- attenuatum* Rud., 1814a, 103, *F. longicollis* Abildg., renamed [later renamed *naja*] [nec Duj., 1845a].—Olfers, 1816, 46.
- attenuatum* Duj., 1845a, 392–393 [nec Rud., 1814] (in *Turdus merula*; Rennes) (includes ?*D. longicauda* Rud., ?*D. macrourum* Rud., ?*D. albicollis* Rud., ?*D. clathratum* Deslongchamps).—Braun, 1902b, 109.—Dies., 1850a, 345 (syn. of *D. macrourum* Rud.).—Rail., 1900, 240.—Schlotthauber, 1860, 129.—Stoss., 1892, 156.
- attenuatum* Bremser, MS., in *Rhynchops nigra*; Brazil.—Braun, 1901f, 563 (renamed *Microlistrum spinetum*); 1902b, 60.
- auriculatum* Wedl, 1857, 242–243, pl. 1, fig. 2 (in *Acipenser ruthenus*).—Braun, 1892a, 586; 1900, 231.—Carus, 1884, 128.—Cobbold, 1860a, 25.—Dies., 1858e, 343.
- auriculatum* Wedl of Lint., 1898, 521, pl. 45, figs. 1–7 (*U. S. Nat. Mus.* 4845); 1901, 415, 435.—Looss, 1902, 454 (of Lint., 1898) (probably a *Bunodera* and identical with *D. petalosum*).—Staff., 1904, May 3, 491 (of Lint., as syn. of *Acrodactyla petalosa* Lander).—Stoss., 1886, 18, 63 to (*Crossodera*).—See also lintoni.
- baccigerum* Rud., 1819a, 108, 398–399 (in *Atherina hepsetus*; Naples).—Braun, 1892a, 700, 720, 721, 734.—Carus, 1884, 129.—Cobbold, 1860a, 27.—Dies., 1850a, 369.—Duj., 1845a, 461.—Mont., 1893, 95.—Stoss., 1886, 45; 1889, 27; 1898, 44–45.
- bacillare* Mol., 1859, 834–835 (in *Centrolophus pompilius*; Padua).—Barbagallo & Drago, 1903, 410 (to *Dicrocoelium*) (in *Scomber scombrus*; Catania).—Braun, 1892a, 720, 737.—Carus, 1884, 130.—Looss, 1899b, 571 (this form, as described by Stoss., belongs to the *Creadiinæ*, possibly to *Creadium*).—Mont., 1893, 86, 94, 102.—Odhn., 1905, 328, 338.—Stoss., 1886, 31 to (*Dicrocoelium*); 1887, 92–93; 1898, 50.
- baculus* Dies., 1850a, 391 (in *Mergus albellus*) (*D. mergi* Rud., 1819a, 121, renamed).—Braun, 1892a, 584; 1893a, 911.—Cobbold, 1860a, 36, 163 (to *Echinost.*).—Linst., 1877, 183, pl. 13, fig. 15.—Stoss., 1892, 163.
- bælzii* Cobbold, 1884g, 976 (syn. of *D. pulmonale* Bælz).
- bagri incapsulatum* Wedl, 1861, 479–480, pl. 3, fig. 40 (in *Bagrus* sp.).
- baraldii* Sons., 1892, 91, 92, 93, 94 (in *Zamenis viridiflavus* Lacep.); 1893, 499; 1893, 184; 1896, 116.—Braun, 1893b, 185 (in *Z. vir.*).—Rizzo, 1902, 28 (in *Coluber viridiflavus*; Catania).—Stoss., 1895, 218–219, to (*Brachylaimus*).—Volz, 1899, 235, 237.—West, 1896, 323.
- barbatum* (Linn., 1761) Zed. of Rud., 1809a, 441.—[See Dies., 1850a, 573] (syn. of *Tetraphorhynchus migratorius*).

DISTOMA—Continued.

- batryophorum* Ben., 1870, 51, see botryophorum.
- beleocephalum* Linst., 1873, 104–105, 106, pl. 5, fig. 2 (in *Ardea cinerea*).—Stoss., 1892, 169 (to *Echinost.*).
- belones* Braun, 1893a, 871 (in *Belone vulgaris*), based on Wedl, 1855, 382–383.
- belones vulgaris* Dies., 1855, 64, based on Wedl, 1855, 382–383 (gives no specific name); 1858c, 355, 356 (in *Belone vulgaris*).—Carus, 1884, 128.—Stoss., 1886, 46.
- benedeni* Stoss., 1898, 51, for *benedenii*, 1887.
- benedenii* Stoss., 1887, 95, pl. 10, fig. 39 (in *Mugil chelo*); 1898, 51.—Braun, 1891d, 424; 1892a, 569, 698, 720.—Looss, 1894, 178; 1901, 439; 1902, 129, 130, 136, 137.—Mont., 1893, 82.—Sons., 1894, 254, 255.—[Type of *Haploporus* 1902.]
- bergense* Olss., 1868, 43–44, pl. 10, fig. 93 (in *Anguilla vulgaris*).—Ben., 1870, 83 (bergensis).—Odhn., 1905, 356, 357 (syn. of *Lecithaster gibbosus* (Rud.)).—Stoss., 1886, 24 to (*Brachylaimus*); 1902, 582.
- bergensis* Ben., 1870, 83, for *D. bergense*.
- beroës* Will., 1844, 343–344, pl. 10, figs. 10–13 (in *Beroë rufescens*; Triest).—Busch, 1851, 99 (in *Saggita*; Triest).—Dies., 1850a, 381 (renamed *D. papillosum*).—Mont., 1893, 123.—J. Mueller, 1850, 497.—Pag., 1862, 298.
- betencourtii* Mont., 1893, 33, 34, 35, 43, 52, 84, 85, 88, 91, 95, 96, 102, 106, 107, 114, 146, 171, 186, 190–193 (syns. *D. luteum* of Ben., 1870, 3; Stoss., 1886, 52; Mont., 1890, 432) (in *Scyllium*; Boulogne), pl. 8, fig. 121; 1896, 152.—Ariola, 1899, 8 (*D. luteum* Ben. as syn.).—Linst., 1903, 354.—Looss, 1894, 219; 1899b, 622.—Stoss., 1899, 10 (to *Pleurogenes*; syn. *luteum* Ben., in *Scyllium canicula*, *S. stellare* at Boulogne); 1904, 193–197.
- bicoronatum* Stoss., 1883, 113–114, pl. 1, figs. 1–3 (in *Ciconia nigra*); 1886, 34, 113 to (*Echinost.*); 1887, 186; 1890, 42 (= *D. cesticillus* Mol.); 1892, 64; 1898, 54.—Braun, 1892a, 571, 583; 1893a, 911; 1893b, 184 (in *Zeus faber*).—Carus, 1884, 127.—Looss, 1901, 599, 600.—Mont., 1888a, 14; 1893, 160, 161.—Sons., 1891, 258.—[1901 to *Stephanochasmus*.]
- bifurcatum* Wedl, 1861, 477–478, pl. 3, fig. 38 (in *Crocodilus vulgaris*; Egypt).—Brand., 1888a, 15; 1888, 57, to *Diplost.*
- bifurca* Braun, 1899, 631 (in *Flusschildkröten*); 1901b, 13, 18 (to *Telorchis*).—Luehe, 1899, 529 (to *Telorchis*).
- bilharzii* Herff, 1894a, 415, for *Bilharzia hæmatobia*.
- biliosum* Leidy, 1858a, 111 (in a fish; America); 1904a, 112.—Dies., 1859c, 430–431.
- bilis* (Braun, 1789) Zed., 1803a, 214–215 (in *Falco melanaëtus*; Germany).—Braun, 1892a, 632.—Dies., 1850a, 376 (in *Falco chrysaëtus*, *F. albicilla*).—Rail., 1898, 412 (to *Campula*).—Rud., 1809a, 408 (renamed *D. crassiusculum*).
- bilobum* Rud., 1819a, 114, 416 (in *Tantalus falcinellus*; Mus. Vien.) to (*Echinost.*).—Braun, 1892a, 584.—Dies., 1850a, 385; 1858e, 347 (in *Ibis falcinellus*, *Platalea leucorodia*, *Fulica atra*); 1859c, 434.—Duj., 1845a, 431–432.—Mol., 1858, 291 (in *Ibis falc.*; Patavia); 1861, 218–219, 247, pl. 3, figs. 5, 8.—C. Par., 1887, 332.—Stoss., 1891, 216; 1892, 171 (to *Echinost.*).—Wedl, 1857, 246–247, pl. 1, fig. 7.—Also reported for *Plegadis falcinellus*.
- binode* (Mueller, 1776) Zed., 1803a, 215 (in a fish).—Dies., 1850a, 379.—Rud., 1809a, 439–440; 1819a, 123.
- biptartum* (Wedl, 1855) Mont., 1893, 150.—[1902 to *Didymostoma*.]
- blanchardii* Cobbold, 1860a, 8, *Brachylæmus erinacei* Blanchard, 1847, renamed (in *Erinaceus europæus*; Paris).—Stoss., 1892, 35 (syn. of *D. linguæforme* Dies.).
- blennii* (Mueller, 1776) Zed., 1803a, 211–212.—Dies., 1850a, 344 (syn. of *D. divergens* Rud.).—Harz, 1881c, 11.—Rud., 1809a, 371 (renamed *D. divergens* Rud.).
- blicca* Linst., 1877, 185–186 (in *Blicca bjoerkna*).—Braun, 1893a, 871.—Stoss., 1886, 46.
- bolodes* Braun, 1902b, 11, 17, 18, 19, 74, figs. 12–13 (in *Fulica atra*; Rossitten (Kurische Nehrung)).
- bonnierii* Mont., 1893, 40, 42, 43, 49, 61, 82, 83, 84, 85, 86, 88, 89, 90, 91, 95, 102, 180–184, pl. 1, fig. 8, pl. 6, figs. 76–80 (in *Trigla gurnardus*; Wimereux), syn.

DISTOMA—Continued.

- D. varicum* Mueller of Mont., 1889, 492, pl. 22, fig. 20.—Looss, 1894, 170; 1899b, 641, 642 (type of *Liopyge*).
- bosci* Cobbold, 1859d, 364, pl. 63, figs. 6-7 (includes *Fasc. colubri* Bosc, *Dist. colubri americani* Rud.) (in *Coluber* sp.); 1860a, 19; 1861e, 119; 1864, 22; 1879b, 455 (*boscii*).—Braun, 1893a, 872, 876 (*boscii*).—Staff., 1905, Apr. 11, 692 (belongs to *Zeugorchis*).—Stoss., 1895, 226.—Volz, 1899, 235, 238.—West, 1896, 322.
- boscii* Cobbold, 1879b, 455, for *bosci*, q. v.—Sons., 1892, 92.
- bothryophoron* Braun, 1892a, 700, for *botryophoron*.
- botryophoron* Olss., 1868, 42-43, fig. 92 (in *Cyclopterus*).—Ben., 1870, 51 (*batryophoron*).—Braun, 1889a, 367; 1892a, 643, 700 (*bothryophoron*), 721.—Lint., 1901, 415 (in *Clupea harengus*, *Pomolobus pseudoharengus*), 419, 437, 439, 444, 485, figs. 355, 356 (*bothryophoron*); 1905, 328, 334, 378, 397, 411, figs. 174-175 (*bothryophoron*) (in *Micropogon undulatus*, *Orthopristis chrysopterus*, *Paralichthys dentatus*).—Looss, 1899b, 729 (*bothryophoron*) (to *Hemirus*).—Odhn., 1905, 356 (syn. of *Lecithaster gibbosus* (Rud.)), 359 (type of *Lecithophyllum*).—Stoss., 1886, 21 (in *Cyclopterus lumpus*, *Argentina silus*, *Molva abyssorum*); 1896, 128 (*bothryophoron*); 1898, 40 (*both.*).
- brachysomum* Crep., 1837a, 314 (in *Hæmatopus ostralegus*); 1846, 134, 136, 142; 1849a, 1, 68.—Braun, 1892a, 578, 583, 710, 720, 721, 723, 728, 733, 736; 1893a, 865, 874, 879; 1900, 234; 1902b, 155.—Cobbold, 1879b, 438.—Dies., 1850a, 397; 1858e, 354 (in *Hæmatopus ostralegus*).—Gamb., 1896a, 71.—Jegers., 1898, 14; 1900, 738, 739; 1901, 982 (type of *Levinnesia*).—Linst., 1878, 133 (in *Hæmatopus ostr.*), 136 (in *Ægialites hiaticula*), 142 (in *Ardea cinerea*); 1882, 20-21; 1887, 104; 1889, 48 (in *Tringa alpina*), 50 (in *Æg. hiat.*), 55 (in *Fuligula cristata*), 56 (in *Glaucion clangula*); 1894b, 336 (in *Actitis hypoleucis*; Seeburger See).—Looss, 1894a, 175; 1899b, 620, 621, 622 (q. type of *Levinnesia*): 1901b, 207; 1902m, 703, 704, 705, 706 (type of *Levinnesia* according to Luehe), 826.—Luehe, 1899k, 537, 538.—Mont., 1888, 94; 1893, 43, 83, 86, 95, 102.—Nicoll, 1906, 524.—Odhn., 1900, 13; 1905, 317.—Stiles & Hass., 1902d, 20 (type of *Levinnesia*).—Stoss., 1892, 148 (includes *D. calidris* Rud.).—Villot, 1875, 475, 476; 1878, 22-24 (in *Anas glacialis*, *Ardea cinerea*), 27, 28, pl. 5, fig. 7 (in *Streptopelia interpres*, *Tringa variabilis*).—Ward, 1901, 176, 184 (type of *Levinnesia* Stoss.).—Also reported for *Actitis hypoleucis*, *Anthura gracilis*, *Bucephala clangula*, *Charadrius calidris*, *C. hiaticula*, *Harelda glacialis*.
- bramæ* (Mueller, 1776) Zed., 1803a, 218.—Dies., 1850a, 341 (syn. of *D. globiporum* Rud.).—Harz, 1881c, 11.—Rud., 1809a, 365.
- brevicolle* Crep., 1829b, 54-55 (in *Hæmatopus ostralegus*; Greifswald).—Braun, 1901, 944; 1902b, 11, 12 (to *Psilost.*), 14, 15, 23, 26.—Cobbold, 1859d, 364; 1860a, 14.—Dies., 1850a, 363-364.—Duj., 1845a, 445.—Linst., 1887, 104.—Mehlis, 1831, col. 176.—Mueller, 1897, 19, pl. 3, fig. 2.—Nicoll, 1906, 514 (in *Hæm. ostr.*).—Stoss., 1892, 35 *D.* (*Dicrocælium*), 177.
- brusinae* Stoss., 1889, 25-26, pl. 14, fig. 60 (in *Oblata melanura*; Triest); 1898, 32; [1904, 197 (type of *Diphtherost.*)].—Braun, 1892a, 587, 700, 736; 1893a, 874, 910.—Looss, 1899b, 622, 623, to *Pleurogenes*.—Mont., 1893, 85, 86, 102.
- brusinae* Looss, 1901d, 399, for *brusinae* (in *Labrus merula*, *L. maculata*, *Crenilabrus pavo*, *C. griseus*, *C. quinquemaculatus*), 400-401; 1902h, 129.—Barbagallo & Drago, 1903, 410 to (*Brachycæcum*) (in *Oblata melanura*; Catania).—Stoss., 1904, 195, 196, 197 (type of *Diphtherost.*).
- buccini* Fil., 1855b, 23.
- buccini mutabilis* Fil., 1855b, 17, pl. 2, figs. 17-18 (in *Buccinum mutabile*; Gulf of Gênes); 1857b, 433, pl. 2, figs. 17-18.—Dies., 1858d, 266 to *Cerc.* (*Acanthocephala*).—Par., 1894, 160.—Villot, 1875, 479.
- bufonis* Linst., 1877, 185 (in *Bufo vulgaris*).—Braun, 1893a, 870.—Stoss., 1889, 69.
- bursæ fabricius* Podwysoski, 1890, 157 (in *Gallus domesticus*).
- bursicola* Crep., 1837, 310, 311, 313 (in *Ardea cinerea*): 1846, 134.—Braun, 1893a, 876; 1893d, 467 (in *A. cin.*); 1901, 259 (syn. of *Echinost. cloacinum* Braun) (types in Creplin's collection, Zool. Museum, Greifswald); 1902b, 74.—Dies., 1850a, 397.—Hass., 1896a, 2 (syn. of *Cephalogonimus ovatus* (Rud.)).—Stiles, 1901k, 593; 1901l.—Stoss., 1892, 144 (syn. of *Cephalog. ov.* (Rud.) Stoss.): 1898, 23 (syn. of *Cephalog. ov.*).
- buski* Bl., 1888, 622-625, for *D. buskii*, q. v.

DISTOMA—Continued.

- buskii* Lankester, E., 1857b, 437 (in Homo; from Asia).—Aitken, 1866, 804, syn. of *D. crassum* (Busk).—Bl., 1888a, 622 (includes *D. crassum* Busk, 1859 [nec Sieb., 1836], 623–625; 1891, 610 (buski) (syn. *D. rathouisi* Poir.).—Braun, 1895b, 141 (includes *D. crassum*); 1889a, 348; 1902b, 95; 1903, 3 ed., 153 (to Fasciolopsis); 1906, 159, 160, fig. 90 (buski).—Brunet, 1902a, 125 (buski).—Cobbold, 1858b, 167; 1860a, 5; 1866, 6; 1876, 303; 1879b, 20.—Gamb., 1896a, 63.—Huber, 1896a, 575–576.—Ijima, 1889, 131.—Kholodk., 1898, 26.—Leuck., 1863a, 587.—Linst., 1878, 3 (syn. of *D. crassum*).—Looss, 1899b, 557 (see Fasciolopsis).—Moniez, 1896, 86, 114–117, 118.—Rail., 1893a, 363, to (*Dicrocoelium*).—Simon, 1897, 209, 223.—Tyson, 1903, 3 ed., 1180.—Ward, 1895, 328 (in Homo); 1903, 867 (to Fasciolopsis); 1904, v. 39, 260.—Weinland, 1858, to *Dicrocoelium*.—Wood, 1904, v. 39, 260.
- buteonis* (Gmelin, 1790) Zed., 1803a, 221.—Dies., 1850a, 396 (in Falco buteo).—Duj., 1845a, 442.—Rud., 1809a, 430; 1819a, 119.—Stoss., 1892, 178.
- [*cæruleum* Sluiter, 1898, 4, 9, 14–16, pl. 2, fig. 4; pl. 3, fig. 11 (a tunicate).]
- cahirinum* Looss, 1896, 119–121, pl. 8, figs. 83–84 (in Bagrus bayad; Cairo); 1899, 752 (to Haplorchis).
- calceolus* Mol., 1858, 129 (in Conger conger, at Patavii); 1861, 210–211.—Braun, 1892a, 586.—Carus, 1884, 132.—Cobbold, 1860a, 25.—Dies., 1858, 342.—Stoss., 1886, 28 to (*Dicrocoelium*).
- calidris* Rud., 1819a, 120 (in Scolopax calidris).—Dies., 1850a, 323 (syn. of Monost. mutabile Zed.).—Duj., 1845a, 447.—Stoss., 1892, 148 (syn. of *D. brachysomum* Crep., 1846).
- callionymi* Ben., 1870, 53, pl. 4, fig. 8 (in Calliomynus dracunculus).—Stoss., 1886, 46.
- calyptrocotyle* Mont., 1891, 110; 1892, Oct. 7, 172, 176; 1893, 1–138, 171, 175, to (*Accacœlium*), pl. 1, fig. 14; pl. 2, figs. 1–11; pl. 3, figs. 12–15, 17–21, 24–28, 30, 31; pl. 4, fig. 50; pl. 7, fig. 104; pl. 8, fig. 136 (in Beroë ovata Dch.); 1896, 151, 152.—Darr, 1902, 688.—Looss, 1894, 131, 142, 145, 165, 166, 189, 219; 1902, 639 (to Orophocotyle).
- campanulatum* Rivolta, 1884, 27, for campanulatum.
- campanula* Duj., 1845a, 435 (in Esox lucius; Rennes) to (*Crossodera*).—Cobbold, 1860a, 32 (= *D. nodulosum*).—Dies., 1850a, 381 (syn. of *D. nod.* Zed.); 1858e, 354; 1859c, 435, 436 (cf. *Gasterost. fimbriatum* Sieb.).—Kroyer, 1846–53a, 253; 1852–53a, 1221.—Moul., 1856a, 219 (in Cyprinus idus; Rennes).—Stoss., 1886, 42, to (*Echinost.*).—Tennent, 1906, 638 (syn. of *Gasterost. fimb.* Wag.) (in Esox).—Wagener, 1858, v. 1, 250, pl. 9; 1860, 165 (syn. of *Gasterost. fimb.*).—Wedl., 1857, 233–244, pl. 1, fig. 3.—Ziegler, 1883, 538 (in Cyprinus idus).
- campanula* Linst., 1886a, 125, for *D. campula* Cobbold.—Stoss., 1892, 16 (syn. of *D. oblongum* (Cobbold) Stoss.; includes *Campula oblonga* Cobbold, 1858), (in *Phocæna communis* at Warnemünde; and *Platanista gangetica* Cuv.).
- campanulatum* Erc., 1874, 432–439, pl. 1, fig. 7 (in Canis familiaris); 1875b, —; 1875c, —; 1875d, —; 1875e, —, 39–40 (in Canis domesticus); 1875f, 278; 1875g, —; 1876a, —.—Braun, 1893a, 875; 1893c, 348, 349, 351; 1893f, 386, 387, 389, 424 (= *D. truncatum* Rud.); 1893g, 802, 803.—Cobbold, 1879b, 300.—Jong, 1887a, in dog; 1887b, 223–224 in cat; 1890a, 140; 1896a, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, fig. 2.—Rail., 1890, 131 (in cat).—Schneidemuehl, 1896, 302 (*kampanulatum*).—Sons., 1889, 276, 277, 280, 281 (syn. of *D. conus* Crep.).—Ward, 1895, 341.—Zwaardemaker (1887), 265; 1888, 679.—Zuern, 1882, 220.
- campula* Cobbold, 1876q, 40, pl. 10, fig. 2, *Campula oblonga* renamed; 1879b, 418, 419, 423, fig. 68.—Braun, 1900g, 250.—Hoyle, 1890, 537.—Jackson, 1888, 648.—Looss, 1899, 558, 559, 560.—Mont., 1893, 44, 82.—Stiles, 1901r, 203.—Stiles & Hass., 1899, 102.—Stoss., 1892, 16 (syn. of *D. oblongum* Cobbold).
- canaliculatum* Rud., 1819a, 676 (in Sterna sp. = *galericulata* teste Dies.; Brazil).—Braun, 1901f, 561, 562; 1901g, 947; 1902b, 59, 140, 142, 144 (to Bilharziella).—Dies., 1850a, 346 (in Sterna galericulata).—Duj., 1845a, 449.—Stoss., 1892, 36, 178.
- canaliculatum* Mehlis, in Crep., 1846, 138 (in Colymbus cristatus).
- capense* Harley, 1864a, 55–72, figs. 1–16 (in Homo; Cape of Good Hope); 1864b, 173–175; 1864c, 156–157; 1864d, 161–163; 1864e, 515–517; 1864f, 142–143; 1864g, 302; 1864h, 293; 1865a, 68.—R. Bl., 1888a, 636 (syn. of Bilharzia hema-tobia).—Bourel-Roncière, 1888a, 130 (*capensis*).—Braun, 1903, 3 ed., 169.—

DISTOMA—Continued.

- Chassaniol & Guyot, 1878a, 66.—Cobbold, 1864g, 157; 1879b, 39; 1885a, 499 (syn. of Bilh. hæm.).—Colloridi, 1891a, 856 (syn. of B. hæm.).—Almeida Couto, 1872, 4.—Crevaux, 1874a, 173 (capensis).—Duffek, 1902a, 774.—Hoyle, 1890, 538.—Huber, 1896a, 580 (syn. of Bilh. hæm.).—Leuck., 1876, v. 2 (3), 873.—Simon, 1897, 99.—Stiles, 1898a, 58.—Ward, 1895, 253 (syn. of Gynæcophorus hæm.) (in Homo).
- capitellatum* Rud., 1819a, 99, 379–380 (in *Uranoscopus scaber*; Arimini, Naples).—Braun, 1883a, 41; 1892a, 672; 1893a, 875.—Carus, 1884, 131.—Cobbold, 1860a, 26.—Dies., 1850a, 356–357.—Duj., 1845a, 456.—Jacoby, 1900, 2.—Looss, 1901, 656, 658.—Luehe, 1900, 504, 506.—Mont., 1888a, 17; 1893, 18, 32, 40, 41, 42, 43, 65, 66, 83, 84, 85, 95, 97, 102, 173–176, pl. 1, fig. 13, pl. 6, figs. 69–75, pl. 7, fig. 103.—Sons., 1890, 142 (in *Uran. sc. L.*).—Stoss., 1886, 46; 1886, 47; 1892, 64; 1898, 38–39.—Will.-Suhm, 1870, 8; 1871, 182.
- capsulare* Dies., 1858e, 355, based on Wedl. 1857, v. 26, 247, pl. 1, fig. 8 (in *Ardea purpurea*, *A. nycticorax*, *A. cinerea*, *Gallinula crex*, *Podiceps nigricollis*).—Braun, 1893a, 870.—Stoss., 1892, 176 (to Agamodist.).
- carinaria* della Chiaje (1841a), 139, pl. 109, figs. 29–30.—Carus, 1884, 133.—Mont., 1888a, 195, 196.
- carinatum* Zed., 1803a, 217 (in *Cyprinus*: *Perca fluviatilis*) (includes *Fasc. longicollis*, *Dist. cyprinaceum*, *F. lagena*, *F. jesis*).—Dies., 1850a, 341 (syn. of *D. globiporum*), 365 (pars, syn. of *D. inflexum*).—Looss, 1902, 763 (and *Sphaerost. globiporum*).—Rud., 1809a, 365 (= *D. globiporum*), 366, 395 (pars = *D. inflexum*).—Stiles, 1901, 168.
- carnosum* (Hass., 1891) Leuck., 1892b, 798.—Braun, 1892a, 674; 1892, 563, *Dist. (Fasc.) carnosum*.
- carnosum* Rud., 1819a, 93, 366, 676 (in *Sparus dentex*; Naples).—Carus, 1884, 130.—Cobbold, 1860a, 22.—Dies., 1850a, 337 (in *Dentex vulgaris*).—Duj., 1745a, 458.—Mol., 1859, 833 (in *Dentex vulgaris*; Padua).—Stoss., 1885, 161; 1886, 23; 1898, 39; 1886, 59, to (*Brachylaimus*).—Also reported for *Corvina nigra*.
- carolinæ* Stoss., 1889, 26–27, pl. 13, fig. 55 (in *Alausa finta*; Triest); 1898, 29.—Braun, 1891d, 423.—Looss, 1899b, 641 (= *Prænopryge ocreata*).—Mont., 1891, 17 (syn. of *Apoblema ocreatum*): 1891, 510, 512 (syn. of *Ap. ocr. Rud.*).—Also reported for *Alosa vulgaris*.
- caryocatactis* Zed., 1800a, 163, 168–169 (in *Corvus caryocatactes*); 1803a, 210.—Braun, 1901, 562; 1902b, 123, 125 (syn. of *Harmost. caudale*).—Dies., 1850a, 362 (syn. of *Dist. caudale*).—Rud., 1809a, 382.
- catervarium* Looss, 1896, 118–119, pl. 8, figs. 81–82 (in *Alosa finta*; Cairo).
- caudale* Rud., 1809a, 382–384 (*caryocatactis* Zed., renamed) (in *Corvus caryocatactes*); 1819a, 103.—Braun, 1893a, 874; 1901, 561, 562, 564; 1902b, 123, 124 (to *Harmost.*), 125 (of Mueller, 1897, 16 = *Urogonimus macrostomus*); 1902b, 128 (of Rud., 1809 = *Harmost. mesostomum*).—Cobbold, 1860a, 14.—Crep., 1837, 317; 1846, —.—Dies., 1850a, 362.—Duj., 1845a, 442.—Giebel, 1857, 266.—Leuck., 1863a, 477.—Looss, 1899b, 703.—Mont., 1893, 149.—Mueh., 1898, 99; 1898, 16.—Mueller, 1897, 16–17, pl. 2, fig. 7.—Olfers, 1816, 44.—Sieb., 1836, 234.—Stoss., 1892, 178.—Reported also for *Ampelis garrulus*, *Coracias garrula*, *Corvus glandarius*, *C. pyrrhocorax*.
- caudale* of Mueller, 1897, in *Coracias garrula*.—Braun, 1902b, 125 (syn. of *Urogonimus macrostomus*).
- caudale* of Will.-Suhm, 1870, 97 (in *Pyrrhocorax alpinus*).—Braun, 1902b, 124–125 (nec Rud.).
- caudatum* Polonio, 1859.—Par., 1894, 147 (in *Natrix torquata*, *Tropidonotus viperinus*; Padua), 627; 1896, 9–11, fig. 4, to (*Opisthorchis*).
- caudatum* Linst., 1873, 103–104, pl. 5, fig. 3 (in *Erinaceus europæus*); 1900, 85 (claims priority for *caudatum* over *leptostomum*).—Blochmann, 1892b, 649–652 (raised experimentally from a *Cercaria* in kidney of *Helix hortensis*).—Braun, 1892a, 570, 723; 1893a, 831, 856, 857; 1901e, 338 (= *D. leptostomum* Olss.).—Cobbold, 1879, 295.—Gamb., 1896a, 71.—Hofmann, 1899a, 189, 196, 201.—Looss, 1894, 2, 236; 1899b, 652 (to *Heterolope*).—Mont., 1893, 149.—Roewer, 1906, 185.—Stoss., 1892, 17 (syn. of *D. leptostomum* Olss.); 1898, 24.
- caudatum* (Bosc, 1802) Steenstrup, 1859, 183.
- caudiporum* Rud., 1819a, 96, 370 (in *Zeus faber*; Arimini).—Dies., 1850a, 342, 371.—Duj., 1845a, 422 to ? (*Apoblema*).—Wagener, 1860, 181 (in *Zeus faber*).

DISTOMA—Continued.

- caviæ* Sons., 1890, 100 (in *Cavia cobaya*); 1897, 250.—Braun, 1903, 3 ed., 147 (syn. of *Fasc. hepatica*); 1906, 150, fig. 83.—Rail., 1893a, 342 (syn. of *Fasc. hep.*).—Stiles, 1898a, 48.—Stoss., 1892, 7 (syn. of *Cladocelum hep.*).—Ward, 1895, 246 (syn. of *Fasc. hep.*). 328 (in *Homo*), 332 (in *Bos taurus*), 335 (in *Ovis aries*); 1903, 865 (syn. of *Fasc. hep.*).
- centra appendiculatum* Leidy, 1904a, 277, misprint for *centrappendiculatum*.
- centrappendiculatum* Leidy, 1891a, 416 (*D. appendiculata* Leidy, 1877, not Rud., renamed); 1904a, 237.
- cercatum* Mont., 1893, 40, 42, 43, 83, 95, 102, 157, host and locality not known, specimen in British Museum, to (*Urogonimus*).
- cerebrale* Yamagiwa, 1890, 457 (in *Homo*), for *D. pulmonum*, see *Paragonimus westermanii*.
- cesti veneris* Vogt., —, 299 (in *Cestum veneris*).—Braun, 1893a, 852.—Dies., 1858e, 356 (in *Cestum veneris*).—Mont., 1893, 124.
- cesticillus* Mol., 1858, 131 (in *Lophius piscatorius*; *Patavii*); 1861, —.—Braun, 1883a, 41; 1892a, 584, 672; 1901a, 34.—Carus, 1884, 127.—Dies., 1858e, 351–352.—Jacoby, 1900, 2.—Linst., 1903, 354.—Looss, 1899, 576 (type of *Stephanost.*), 581; 1901, 600.—Luehe, 1900, 505.—Mol., 1861, 221–223.—Mont., 1893, 41, 42, 61 (*cesticillum*), 160, 161.—Stoss., 1886, 34; 1890, 42 (*D. bicoronatum* Stoss., 1883).—Will.-Suhm, 1870, 8.
- cestoides* Ben., 1870, 17, pl. 6, fig. 9 (in *Raja batis*).—Braun, 1893a, 873.—Linst., 1903, 354.—Linst., 1901, 415, 432.—Mont., 1893, 53.—Stoss., 1886, 46.
- cylindraceum* Looss, 1894a, 36, misprint for *cylindraceum*.
- characis* Stoss., 1886, 26 to (*Brachylaimus*) (in *Charax puntazzo*; *Triest*): 1887, 91; 1898, 37.
- chefrenianum* Looss, 1896, 73–76, pl. 5, figs. 50–51 (in *Rhinopoma microphyllum* Geoff.; *Ghizeh*); 1898, 453, 454, 456, 457, 458, fig. 1 iii; 1899, 716, 717 to *Lecithodendrium*.—Stiles, 1901, 200.
- chefresianum* Looss, 1896, pl. 5 (misprint for *chefrenianum*).
- chelonix atræ* Braun, 1899e, 629, see *D. pachyderma*.
- chelydræ* Staff., 1900, 406–407, fig. 5 (in *Chelydra serpentina*); 1905, Apr. 11, 690, type of *Auridist.*
- chilostomum* Mehlis, 1831, 186–187 (in bats).—Braun, 1892a, 577; 1900, 221, 222, 223; 1900, 387, 388.—Crep., 1837, 328.—Cobbold, 1860a, 7; 1879b, 294.—Dies., 1836, 240; 1850a, 349 (includes *D. noctulæ* Rud., 1819a, 119).—Kolenati, 1857, 11.—Linst., 1878, 225–226, fig. 8.—Mueh., 1898, 26.—Sieb., 1836, 234.—Stoss., 1892, 20–21 (in *Plecotus auritus*, *Vesperilio daubentonii*, *V. nattereri*, *V. murinus*, *V. mystacinus*, *Vesperugo discolor*, *V. leisleri*, *V. noctula*, *V. serotinus*).
- chilostomum* Mehlis of Ben., 1873b, 27, pl. 6, figs. 7, 8, 19.—Sieb., 1835, 56.—Stoss., 1892, 14 (syn. of *D. aristotelis*).
- chinense* Cobbold, 1876, 97 (*D. sinense*, renamed).
- chloropodis* Zed., 1800a, 164, 198–199 (in *Fulica chlorops*).—Dies., 1850a, 384 (syn. of *D. uncinatum* Zed.).—Rud., 1809a, 420.
- choledochum* Linst., 1883a, 306–307, pl. 9, fig. 49 (in *Anas* sp.); 1886, 30.—Braun, 1892a, 699; 1893a, 875; 1893, 353; 1893f, 426; 1894i, 602, 605.—Looss, 1896b, 58, 59; 1899b, 675.—Stoss., 1892, 161 (in *Anas* sp.; *Turkestan*).
- chrysaëti* Rud., 1819a, 119 (in *Falco chrysaëtus*).—Duj., 1845a, 441–442.—Stoss., 1892, 151 (syn. of *D. crassiusculum* Rud.).
- chrySTALLinum* Hannover, 1864a, 3, for *crystallinum*.
- cignoides* Mont., 1888a, 40, 80, for *cygnoides*.
- cymbiforme* Mont., 1896, 165, for *cymbiforme*.
- cinctum* (Rud., 1803) Rud., 1809a, 422–423, to (*Echinost.*); 1819a, 116.—Ben., 1858a, 1861a, 85.—Cobbold, 1860a, 35, to *Echinost.* (in *Vanellus cristatus*, *V. melanogaster*).—Crep., 1837, 311, 312, 316.—Dies., 1850a, 386 (includes *D. tringæ helveticæ* Rud., *Fasc. ci.* Rud.) (in *V. crist.*, *V. mel.*).—Duj., 1845a, 431.—Giebel, 1857, 265.—Linst., 1887, 104.—Mueller, 1897, 19–20, pl. 3, fig. 3 to (*Echinost.*).—Nord., 1832a, 90.—Olfers, 1816, 47.—Olss., 1876, 21.—Stoss., 1892, 172 to (*Echinost.*); 1898, 53.
- [*circumvallata* Sluiter, 1900, 8 (a tunicate).]

DISTOMA—Continued.

- cirratum* (Rud., 1802) Rud., 1808a, xxvi, pl. 6, fig. 7; 1809a, 376; 1819a, 100–101; spelled *F. cirrosum*, Rud., 1808a, 296.—Braun, 1893a, 874; 1901, 561, 563; 1902b, 37, 38 (syn. of *D. elegans*), 39, 43 (to *Plagiorchis*), 40, 44, 45, 47, 48, 49.—Cobbold, 1860a, 12.—Crep., 1837, 317, 322, 326.—Dies., 1850a, 350 (includes *Fasc. cirrata* Rud.).—Duj., 1845a, 413 to (*Brachylaimus*).—Fil., 1855b, 8 (*cirrhatum*).—Jacoby, 1900, 20.—Looss, 1899, 703.—Luehe, 1899, 530, 531; 1901, 487.—Mueh., 1896, 589; 1896, 262–266, figs. 5, 12; 1898, 16, 27, 92.—Olfers, 1816, 44.—Stoss., 1892, 153 (includes *D. elegans* Rud., 1819a, *D. globocaudatum* Duj., 1845a); 1904, 2 (to *Plagiorchis*).—Reported also for *Egiothus linarius*, *Corvus cornix*, *C. corone*, *C. monedula*, *C. pica*, *Larus marinus*, *Sturnus vulgaris*.
- cirrhatum* (Rud., 1802) Fil., 1855b, 8, for *cirratum*.
- cirrherum* Nord., 1840, 616, for *cirrgerum* 1827, q. v.
- cirrgerum* Baer, 1827, 553 (in *Astacus fluviatilis*).—Brand., 1891b, 264.—Braun, 1892a, 749, 751; 1893a, 859, 870 (*cirrherum*).—Crep., 1837, 325, 326.—Dies., 1836, 240; 1850a, 363 (syn. of *D. isostomum* Rud.).—Harz, 1881a; 1881b; 1881c, 1, 2, 3, 4, 7, 8, 9, 10, 11, 14.—Hoyle, 1890, 537.—Jackson, 1888, 648, 652.—Kampmann, 1894b, 452, 454, 457, 458, 459, 460, 462, pl. 20, figs. 11–13.—Linst., 1903, 281, 282 (*cirrherum*); 1904, 254.—Lint., 1892, 69–70.—Looss, 1893b, 814; 1894a, 230.—Marshall & Gilbert, 1905a, 480.—Mont., 1888a, 64.—Moul., 1856, 217 (in *Astacus fluviatilis*).—Mueh., 1898, 14.—Nord., 1840, 616.—Reinhard, 1871, 8 pp.—Schneidemuehl, 1896, 302.—Sieb., 1835, 56, 59, 64, 67.—Steenstrup, 1842, 56.—Warren, 1903, Dec., 273–301, pls. 24–26 (anat., development); 1904, 15 June, 311.—Wierzejski, 1888, in 20 pp., 1 pl.—Zaddach, 1881, 893; 1881, 1 Aug., 398–404; 15 Aug., 423–431.
- cirrosum* Rud., 1808a, 296, pl. 6, fig. 2 [=7] (for *D. cirratum*).
- cladocalium* Dies., 1858e, 354 (in *Ardea minuta*) [based on "Distome (*Cladocalium*) du foie du Blongias, Pontallié, 1853, 103"].—Braun, 1893a, 875.—Stoss., 1892, 178.
- clathratum* Deslongchamps, in Lamouroux 1824a, 563 (in *Cypselus apus*).—Braun, 1893a, 875, 910; 1899, 714; 1902b, 109 (= *D. refertum* Mueh.).—Cobbold, 1860a, 15.—Dies., 1850a, 396.—Duj., 1845a, 393–394.—Jacoby, 1900, 10, 11.—Looss, 1899, 634 (to *Dicrocœlium*).—Mueh., 1898, v. 1, 22, 26, 84–85, 86, 87, pl. 4, figs. 7, 17.—Ols., 1876, 24.—Stoss., 1892, 155.
- clathratum* Deslongchamps of Ols.—Rail., 1900, 239 (syn. of *Dicrocœlium olssoni* Rail.).—Braun, 1902b, 100, 109.
- clava* Dies., 1850a, 356 (in *Eunectes scytale*, *Hydroscoptes plumbeus*, *Coluber flaviventris*, *Clodia fasciata*; Brazil); 1855, 66, pl. 3, figs. 7–8; 1856, 339.—Braun, 1892a, 568, 587; 1901b, 13, 58; 1901i, 58.—Cobbold, 1860a, 19.—Luehe, 1899, 524, 529 (type of *Telorchis*); 1900b, 151.—Sons., 1892, 92.—Stoss., 1895, 229–230.
- clavatum* (Menzies, 1791) Rud., 1808a, 260; 1809a, 387, 391–393 (includes *Hirudinella* Garsin, 1730: *Fasc. scombri pelamidis* Tilesius), 437; 1814a, 102; 1819a, 106, 122, 394–395, 682–683, 685.—Baird, 1853a, 59, 60 includes *Hirudinella clav.* (Menzies) Blainv.; *D. clav.* Owen = *H. ventricosa*.—Barbagallo & Drago, 1903, 410 (in *Pelamys sarda*; Catania).—Ben., 1870, 37.—La Billardière, (1801), 46.—R. Bl., 1891r, 692–693, syn. *D. ingens* Moniez (in Requim).—Brand., 1891d, 16; 1898a, 208.—Braun, 1892a, 568, 571, 576, 588, 591, 592, 593, 597, 603, 605, 608, 609, 610, 611, 623, 624, 625, 630, 631, 632, 635, 636, 637, 638, 640, 641, 642, 645, 647, 664, 665, 669, 673, 675, 677, 682, 683, 684, 685, 686, 687, 688, 690, 698, 699, 700, 701, 705, 712, 713, 717, 719, 724, 726, 731, 733; 1893a, 873, 878; 1893b, 184; 1893d, 466.—Buttel-Reepen, 1900a, 585, 586, 589, 590, 592, 594, 598; 1902, 166, 167, pl. 6, figs. 7, 11a, 11b, 12; 1904, Jan. 26, 24–25; 1905, July, 52–53.—Carus, 1884, 131.—Chatin, 1887d, 1003.—Cobbold, 1860a, 21; 1867k, 200–205 (from sword-fish); 1879b, 458, 460, 461.—Crep., 1837, 316, 327.—Darr, 1902, 662, 664, 665, 666, 667, 689.—Dies., 1850a, 366–367 (includes *Hirudinella* Garsin: *Fasc. fusca* Bosc; *F. cl.* Menzies; *F. scombri pelamidis* Tilesius; *D. coryphæna* Rud.) (in *Coryphæna hippurus*; Brazil; *Pelamys sarda*, *Thynnus vulgaris*); 1859c, 431.—Duj., 1845a, 459–460.—Goto, 1891a, 181 (*Distonum*).—Jackson, 1888, 644, 646, 647–648.—Jægers., 1900, 72.—Jourdan, 1881a, 438–448, pls. 7–8, figs. 1–10 (anatomy); 1881b, 12 pp., pls. 7–8, figs. 1–10; 1881c, 604–605.—Juel, 1889, 13, 17, 18, 19.—Kroyer, 1838–1840a, 596 (in *Thynnus vulgaris*).—Lander, 1904, 8.—Lint., 1898, 539–540, pl. 53, figs. 8–11; 1901b, 415, 421, 445, 448 (in *Thynnus thynnus*, *Niphius gladius*).—

DISTOMA—Continued.

- Looss, 1849a, 9, 113, 145, 147, 151, 152, 198, 202; 1895c, 69; 1896b, 204; 1899b, 556, 646, 739.—Moniez, 1892, 108–118.—Mont., 1888a, 23, 26, 30, 31, 38, 39, 42, 44, 47, 48; 1893, 7, 15, 20, 22, 26, 27, 33, 34, 44, 65, 66, 67, 68, 69, 73, 83, 86, 88, 89, 104, 106, 113, 135, 152.—Olfers, 1816, 46.—Osbeck, 1765, 392.—Owen, 1835, v. 1, 381–384, pl. 41, figs. 17–20; 1835, 72–73; 1837, 271–273, pl. 2.—Par., 1887, 334–335.—Poir., 1885, 4, 5, 6, 7–8, 9, 10, 14, 15, 16, 18, 22, 23, 25, 26, 27, 29, 32, 33, 37, 38, 39, 43, 45, 46, 47, 48, 51, 52, 54, 55, 56, 57, 58, 60, 62, 63, 70, 71, 73, 75, 77, 78, 79, 81, 83, 84, 88, 93, 95, 96, 97, 102, 103, 105, 107, 109, 110, 113, 116, 117, 118, 120, 121, 127, 130, 131, 133, 134, 138, 139, 142, 143, 144, 146, 147, 149, 150, 151, 152, pl. 23, fig. 1; pls. 24, 25, 26, figs. 1–3; pl. 27, fig. 1; pls. 28, 29, figs. 1, 3, 4; pl. 30, figs. 1–3; pl. 31, figs. 1–5.—Sieb., 1835, 68.—Stiles, 1901, 194 (type of *Hirudinella*).—Stoss., 1886, 46.—Wagener, 1860, 182, pl. 9, figs. 11–12 (in *Scomber pelamys*).—Ziegler, 1905, 39.—Also reported for *Scomber thynnus*.
- claviforme* Brand., 1888, 247–251, pl. 17, fig. 1 (in *Tringa alpina*).—Braun, 1892a, 568, 578, 586, 662, 700; 1893a, 874, 910.—Jacoby, 1900, 11.—Jægers., 1900, 739, 740.—Looss, 1899b, 618, 619, 620; 1902m, 704.—Luehe, 1899, 537.—Nicoll, 1906, 524.—Odhn., 1900, 13.—Staff., 1905, Apr. 11, 692.—Stoss., 1892, 148–149 to (*Brachycoelium*).—Ward, 1901, 184.
- clavigerum* Rud., 1819a, 103, 389–391, 589 (in *Bufo viridis* at Berlin, and *B. cine-reus*, *Rana esculenta*, *R. temporaria*, *Hyla arborea*).—Baird, 1853a, 52 (Fasc. ranæ Froelich).—Bellingham, 1844, 424.—Ben., 1858a, 1861a, 93, 96–97.—Bettend., 1897a, 4, 5, 8, 15; 1897, 308, 309, 312, 319.—Biehringer, 1888a, 234.—Brand., 1891b, 265.—Braun, 1892a, 635, 707, 715, 736, 750, 751; 1893a, 865, 879.—Cobbold, 1858b, 162, pl. 33, figs. 52–53 (in *Rana temporaria*); 1860a, 16; 1879b, 454.—Crep., 1837, 310, 311, 312, 316, 322, 325, 328, 329; 1839, 287.—Dies., 1850a, 352, 388 (includes Fasc. ranæ Froelich; *D. c. Rud.*, ex parte, as syn. of *D. retusum* Duj.); 1858, 429; 1858e, 338 (Cerc. (*Acanthocephala*) ornata), adult in *Rana temporaria*, *Pelophylax esculentus*; larva in *Planorbis corneus*, *Hydrachus concharum*); 1859c, 429 (Cerc. armata major, in *Lymnaeus stagnalis*, *L. ovatus*, *Planorbis corneus*; Belgium), 434 (Cerc. ornata).—Duj., 1845a, 404.—Duncker, 1881a, 23; 1882, 188; 1884a, 40.—Erc., 1881e, 77, 78, 82, 83, 84, 85, 89; 1882a, 313, 314, 318, 319, 320, 321, 325.—Fil., 1857c, 32.—Florencia, 1866a, 11.—Gamb., 1896a, 72.—Hoyle, 1890, 537, 540.—Jackson, 1888, 648.—Juel, 1889, 37.—Kampmann, 1894b, 446, 448, 454, 457, 459, 460, 461, 462, pl. 20, figs. 14–18.—Kath., 1894a, 152.—Kowal., 1894d, 3; 1895, 350–351; 1902d, 9 (to *Pleurogenes*).—Lamouroux, 1824a, 562.—Leuck., 1863a, 477, 520.—Linst., 1873, 1 (Cerc. ornata La Valette is young stage); 1882, 18; 1887, 97, 98, 99, 105; 1890f, 184; 1904, 254.—Looss, 1885b, 24, 39, 40, pl. 23, fig. 15; 1893b, 810, 811 (includes *D. neglectum* Linst., 1887); 1894a, 1, 2, 82, 83, 84, 85, 87, 91–101 (1 text fig.), 102, 103, 104, 105, 106, 107, 119, 124, 126, 137, 140, 158, 159, 165, 167, 173, 176, 179, 181, 191, 192, 197, 202, 205, 206, 208, 209, 210, 211, 212, 219, 227, 228, 230, 234, 264, 270, 273, pl. 2, figs. 30–32; pl. 8, figs. 165–166, 170–175; pl. 9, fig. 189 (includes *D. neglectum* Linst., *D. medians* Olss., e. p.); 1894d, 5, 50; 1896, 94, 95; 1898, 461; 1899b, 611, 614, 617 (type of *Pleurogenes*), 622, 623.—Luehe, 1899, 536; 1901, 169.—Mol., 1859, 846–848, pl. 3, fig. 3 (in *Pelophylax esculentus*; Padua).—Mont., 1888a, 15, 65; 1893, 71, 95, 102; 1896, 152.—Mueh., 1898, 23.—Nickerson, 1900, 814, 815.—Noack, 1892, —.—Nord., 1840, 616.—Olfers, 1816, 44.—Pag., 1857, 17, 18, 39–40, 52, pl. 4, figs. 8–14 (in brown and green frogs).—Par., 1887, 490.—Poir., 1885, 101.—Schwarze, 1885, 76.—Sieb., 1835, 64, 65; 1836, 233, 239.—Sons., 1893, 187, 189 (in *Rana esculenta*).—Staff., 1905, Apr. 11, 684.—Stiles, 1901, 197, 198, 199, 201.—Stoss., 1889, 64; 1896, 128; 1898, 43–44.—Wolf, 1903, 612, 613, 619, 621.—Zuern, 1882, 220.
- clavigerum* Rud., 1819a, of Duj., 1845a.—Looss, 1894, 101 (renamed *D. confusum* Looss); 1896, 88, 91, 93, 94, 95.
- clupeæ* (Schrank, 1788) Zed., 1803a, 218 (in *Mayfische*; Rhine).—Baird, 1853a, 54 (syn. of *D. appendiculatum* Rud.).—Dies., 1850a, 371 (syn. of *D. app. Rud.*).—Rud., 1809a, 437.
- clupeæ rhenanæ* Rud., 1809a, 437–438 (includes Fasc. alosæ Hermann, 1783, F. clupeæ Schrank, 1788, *D. clupeæ* Zed., 1803); 1819a, 110 (syn. of *D. app. Rud.*).—Baird, 1853a, 54 (syn. of *D. app. Rud.*).—Dies., 1850a, 371 (syn. of *D. app. Rud.*).
- cochlear* Dies., 1850a, 357–358 (in *Sterna cantiaica*, *S. minuta*; Brazil) (*D. cochleari-forme* [sternæ] Rud., 1819a, 681, renamed).—Braun, 1901, 561, 563; 1901, 895.

DISTOMA—Continued.

- 1902b, 56 (includes *D. diesingi* Cobbold), 58 (to *Microlistrum*).—Stoss., 1892, 37, 179.
- cochleariforme* Rud., 1819a, 681–682, 687 (in *Pelecanus aquila*, ?*Sterna cantiaea* [see *D. cochlear*], *S. minuta*, *S. sp.*; Brazil).—Braun, 1901, 561, 563; 1901, 895; 1902b, 55 (type of *Microlistrum*), 56, 58 (of Stoss., 1892, 37; Duj., 1845a, 449; Rud., 1819a, 681; pars. syn. of *Microlistrum cochlear*).—Cobbold, 1860a, 13.—Dies., 1850a, 357.—Duj., 1845a, 449.—Stoss., 1892, 37, 179.
- cochleariforme sternæ* Rud., 1819a, 681, of Dies., 1850a, 357 (renamed *D. cochlear Dies.*).
- coelebs* Linst., 1875, 192–193, pl. 3, fig. 15 (in *Fringilla coelebs*).—Braun, 1893a, 870.—Stoss., 1892, 176 (to *Agamodist.*).
- colomaticum* Giard & Billet, 1892a, 614–615 (in cattle; Tonkin).—Gomy, 1897a, 374, 375.—Looss, 1899b, 634; 1907, Feb. 1, 126 (in ox; Cao Bang, Tonkin).—Rail. & Marotel, 1898, 30, 31, 32.—Stiles, 1898a, 57 (syn. of *Dicrocoelium pancreaticum*).—Ward, 1895, 332 (in *Bos taurus*).
- coleostomum* Looss, 1896b, 101–106, 154, pl. 7, figs. 66–68 (in pelican; Egypt); 1899b, 578, 581, 585 (type of *Ascocotyle*).—Braun, 1901b, 34.—Vaullegeard, 1901, 143 (*colostomum*).
- collurionis* (Schränk. 1790) Zed., 1803, 211.—Cobbold, 1860a, 15.—Dies., 1850a, 396.—Rud. 1809a, 430; 1819a, 119.—Stoss., 1892, 179.
- colostomum* Vaullegeard, 1901, 143 (for *coleostomum*).
- colubri* (Bosc, 1802) Rud., 1809a, 434–435 (in *Coluber sp. americana*).—See *bosci*.
- colubri americani* Rud., 1819a, 121 (*colubri*, 1809, renamed).—Cobbold, 1859d, 364 (syn. of *D. bosci*).—Dies., 1850a, 398 (includes *Fasc. colubri* Bosc).—Sons., 1892, 92.
- colubri murorum* Rud., 1819a, 121 (in *Coluber murorum*).—Dies., 1850a, 367 (syn. of *D. allostomum* Dies.).—Duj., 1845a, 452.—Stoss., 1895, 230.
- colubri natricis intestinale* Rud., 1809a, 433–434; 1819a, 103 (syn. of *D. mentulatum* Rud.) (in *Coluber natrix*).—Dies., 1850a, 355 (syn. of *D. ment.*).
- colubri natricis pulmonale* Rud., 1809a, 434; 1814a, 103; 1819a, 99, 377 (syn. of *D. naja* Rud.) (in *Coluber natrix*).
- colubri tessellati* Rud., 1819a, 121 (in *Coluber tessellatus*).—Dies., 1850a, 355 (syn. of *D. mentulatum* Rud.).
- columbæ* Mazzanti, 1889a, 161–165 (in *Columba livia*; Pisa), teste Par., 1894, 145; 1890, 139.—Braun, 1902b, 117.—Hass., 1896a, 2, 3 (syn. of *Mesogonimus commutatus* (Dies.)).—Sons., 1889, 283.
- commune* Ols., 1867, 31–32 (in *Labrus*).—Braun, 1891d, 424 (in *Crenilabrus griseus*).—Lint., 1901, 415, 485, 486.—Looss, 1901d, 399.—Odhn., 1901, 485, 486, 487, 494, 495, 499, 500, 503, 508; 1905, 321.—Sons., 1891, 257, 258 (in *Crenilabrus griseus*, *Labrus mixtus*).—Stoss., 1886, 32.—Also reported for *Anguilla vulgaris*, *Cottus bubalis*, *C. scorpius*, *Crenilabrus melops*, *Labrus maculatus*, *L. sp.*
- commune* Hausmann, 1896?, 24.—Looss, 1899b, 571 (possibly identical with *Creadium angusticolle*).
- commutatum* Dies., 1858e, 339–340 (*D. dimorphum*, 1852, 555, pl. 16, 1 [not Dies.] renamed) (t. h. *Phasianus gallus*; Pisa).—Anacker, 1887c, 513.—Braun, 1893a, 874; 1900, 25; 1900h, 19, pl. 1, figs. 1, 2; 1902b, 116.—Caruccio, 1886, 293.—Cobbold, 1860a, 15.—Hass., 1896a, 2, 3 (to *Mesogonimus*).—Landois, 1882, 23.—Looss, 1899b, 650 (perhaps a *Clinost.*).—Mont., 1893, 155.—Rail., 1890, 131.—Schneidemuehl, 1896, 303 (*kommutatum*).—Sons., 1889, 11; 1889, 282–283; 1890, Feb. 15, 138.—Stoss., 1892, 175 (to *Mesogonimus*).
- compactum* Cobbold, 1859d, 363, pl. 63, figs. 1–3 (in lung, *Viverra mungos*); 1861, 118; 1864, 16, fig. 2; 1879, 299, 419; 1884g, 976.—Braun, 1892a, 663; 1893a, 876; 1899g, 492, to *Paragonimus*; 1901e, 329, 330, 333, 334.—Kerbert, 1878a, 272.—Mont., 1893, 83, 155.—Sons., 1884, 19.—Stiles & Hass., 1890a, 605, to *Paragonimus*.—Stoss., 1892, 31 (to *Mesogonimus*).—Also reported for *Mungos fasciatus*.
- complanchum* Rud., 1814a, 103–104 (in *Ardea cinerea*; Berlin); 1819a, 98, 376–377, 680.—Braun, 1893a, 873; 1899g, 465, 485, 486, 489 (specimens from Pavia and Cagliari, as syn. of *Clinost. heterost.*).—490; 1900h, 14, 15, 17, 18, 19, 23 to *Clinost.*, 24, 25, 26, 27, 28, 29, 30; 1900, 141; 1901, 561.—Cobbold, 1860a, 9.—Dies., 1850a, 338 (to *Dist.*), (t. h. *Ardea cinerea*; Berlin), 354.—Duj.,

DISTOMA—Continued.

- 1845a, 399–400 to (Dicrocoelium).—MacCallum, 1899, 697, 706.—Olfers, 1816, 44.—Par., 1887, 23 (syn. of *D. hians*) (to Clinost.); 1887, 489.—Stoss., 1892, 160.
- complanatum* from *Ardea cinerea* and *Nycticorax griseus*, labeled *complanatum* (= *hians*) of Genueser Sammlung, from Pavia and Cagliari, are according to Braun, 1900h, 19, identical with Clinost. heterost.
- complanatum* Erc. of Par., 1894, 144, and Ward, 1895, 341, from *Canis* fam., misprint for *campanulatum*.
- complexum* Stiles & Hass., 1894e, 425–426, pl. 1, figs. 3–4, to (Dicrocoelium) (in *Felis catus* dom.; U. S. A.); 1894f, 89–91.—Braun, 1900h, 16.—Looss, 1896, 58; 1899b, 565 (to Metorchis).
- complicatum* Mehlis, 1846, 141 (in *Haliaëtus carbo*).—Crep., 1846, 141.
- concarum* Crep., 1825a, 45–47, 83, figs. 7–8 (in *Colymbus rufogularis*); 1837, 310, 314, 318; 1846, 138, 141, 145, 146.—Braun, 1893a, 874, 879; 1900h, 6; 1901, 564.—Cobbold, 1860a, 11.—Dies., 1850a, 340–341.—Duj., 1845a, 448.—Jacoby, 1900, 22, 23.—Jägers., 1898, 9, 10, 12, 14, 16.—Kowal., 1894, 2; 1895, 350.—Looss, 1899b, 586 (to *Tocotrema*); 1900, 607, type of *Cryptocotyle*.—Luehe, 1899, 539 (type of *Cryptocotyle*).—Mueh., 1898, 4, 19–21, 27, 80–83, figs. 6, 20, 26.—Stoss., 1892, 158; 1897, 10; 1898, 42.—Reported for *Alca torda*, *Anas clangula*, *A. fusca*, *A. glacialis*, *A. hornschuchii*, *A. marila*, *Bucephala clangula*, *Colymbus cristatus*, *Fuligula marila*, *Harelda glacialis*, *Larus glaucus*, *Mergus merganser*, *M. serrator*, *Podiceps nigricollis*.
- confusum* Looss, 1894a, 2, 17, 83, 84, 91, 92, 93, 95, 96, 99, 101–104, 105, 106, 108, 113, 126, 135, 137, 149, 150, 159, 167, 177, 179, 180, 181, 182, 191, 192, 197, 210, 211, 212, 214, 216, 217, 227, 228, 230, 234, 256, 263, pl. 2, figs. 33–35, pl. 8, figs. 164, 167 (*D. clavigerum* of Duj., 1845a, 404 (in *Rana esculenta*; Paris, Rennes), renamed; includes also *D. clavigerum*, ex parte, and *endolobum* e. p., of Pag., and *clavigerum* of Pachinger); 1893b, 810, 811; 1894d, 17; 1896b, 88, 91, 92, 93, 94, 95; 1898a, 460, fig. 2; 1899b, 556, 614, 616, 622, 623 (type of *Prosoctocus*).—Luehe, 1901p, 169.—Mueh., 1898, 23.—Nickerson, 1900, 814, 815.—Stiles, 1901, 197.
- conicum* Polonio, 1859, teste Par. 1894, 627 [see also *Diplost. conicum*].—Anacker, 1892c, 94.
- conis* Crep. (misprint for *D. conus* Crep., in Perroncito, 1886, 250).
- conunctum* Rivolta, 1884, 26, for *conjunctum*, 1860.
- conjunctum* ^a Cobbold, 1860a, 8 (t. h. American *Canis fulvus*); 1860, 349; 1861, 118; 1864, 20–22, pl. 2; 1873, 81; 1876, 210; 1879b, 28, 30–34, 299, fig. 56; 1883, 401, fig. 16.—R. Bl., 1888a, 612–614 (two (all to date) human infections, review); figs. 314–315, 631; 1891, 610 (syn. of *D. conus*).—Braun, 1883a, 65–66; 1892a, 642, 663, 748; 1893, 349, 352; 1893a, 874, 882; 1893f, 386, 389, 425; 1894i, 605; 1895b, 147–148, 151, fig. 65; 1903, 3 ed., 163 (of Cunningham and McConnell, renamed *Opisthorchis neverca*), 164, fig. 113 (from *Canis fulvus*).—Brunet, 1902a, 125.—Dunlison, 1893, 338.—Fitz, 1876b, 517.—Gamb., 1896a, 63.—Hackley, 1886, 519.—Hahn & Lefèvre, 1884a, 545–546 (= *sinense*).—Huber, 1896a, 578 (= *O. neverca*).—Ijima, 1889b, 146.—Jamison, 1897a, 74.—de Jong, 1887a, 57; 1896a, 2.—Kamensky, 1900a, 17, 23.—Kholodk., 1898, 26, 29–30, pl. 11, fig. 13.—Kuech. & Zuern, 1881, 335.—Leuck., 1889, 355, figs. 162–163.—Lewis & Cunningham, 1872, 168.—Linst., 1873, 100.—Looss, 1899b, 565 (to Metorchis); 1905, 90 (of Lewis & Cunningham, syn. of *O. neverca*).—Maddox, 1867, 95.—Manson, 1901, 540 (in *Homo*); 1903, 3 ed., 635, fig. 98 (McConnell in an East Indian, 1874, apparently of but slight pathological importance).—McConnell, 1875, Aug. 21, 271–274, figs. 1–3; 1875, Oct., 772–780, figs. 1–3; 1876, Mar. 4, 343–344, figs. 1–3; 1876, Apr., 242–246, figs. 1–3 (case in man); 1876, July, 314–317; 1878, Mar. 30, 343, 476.—Moniez, 1896, 86, 122–125, 137.—Mont., 1893, 83 (*coniunctum*), 95.—Mosler & Peiper, 1894, 178.—Neumann, 1892, 529–530, fig. 284.—Perroncito, 1882, 285; 1886, 250, 297.—Rail., 1886, 297; 1893a, 365 to (*Brachylaimus*).—Schneidemuehl, 1896, 302 (*kongenitum*).—Simon, 1897, 209, 223–224.—Sons., 1889, 276, 277, 278, 280; 1889, 281 (syn. of *D. conus* Crep.).—Stiles, 1904i, 34 (to Metorchis).—Stiles & Hass., 1894e, 429–430, pl. 3, figs. 13–15 (consider form from man

^a All references to "*Distoma conjunctum* Cobbold" as a parasite of man are based upon the findings of Cunningham, McConnell, and Lewis, and refer in reality to *Opisthorchis neverca*, q. v.

DISTOMA—Continued.

- distinct).—Stoss., 1892, 24–25 (syn. of *D. conus*).—Tyson, 1903, 3 ed., 1180.—Ward, 1895, 238 (man, dog), 328 (Homo), 341 (in *Canis familiaris*).—Wood & Fitz, 1897, 335.
- conjunctum* of Lewis and Cunningham, in Homo, India; see *Opisthorchis neverca*.
- conoideum* (Bloch, 1782) Rail., 1886, 297; 1893a, 366 (syn. of *D. echinatum* Zed.; includes excavatum Rud., 1819, echiniferum La Val., 1855, ? militare Rud., 1809; cf. *Cerc. echinatoides* Fil., *C. echinifera*, *C. spinifera*); in ducks, geese, swan, etc., and dog.—Ward, 1895, 341 (in *Canis familiaris*).
- conostomum* Olss., 1876, 17–18, pl. 3, fig. 37 (in *Coregonus oxyrrhynchus*).—Braun, 1892, 45; 1892a, 663, 699, 711, 722; 1893a, 872; 1901b, 9, 10, 12.—Looss, 1899b, 605, thinks it a *Spathidium*; 1901l, 558.—Luehe, 1900aa, 507.—Mont., 1893, 95, 102.—Odhn., 1902, 65, 67.—Stoss., 1886, 22, 62 (in *Coregonus oxyrrhynchus*).
- constrictum* Mehlis, in Creplin, 1846, 142, 143 (in *Anas mollissima*, *A. nigra*).—Crep., 1846, 142, 143.—Dies., 1850a, 397.—Stoss., 1892, 180.—Reported also for *Anas fusca*.
- constrictum* Leared, 1862, 271–273, fig. 21 (in edible turtle).—Braun, 1892a, 569, 763, 764; 1893a, 876 (in *Chelone mydas*); 1893d, 467; 1899b, 715 (= *D. mistroides*).—Cobbold, 1879b, 35.—Laveran & R. Bl., 1895, 104.—Leuck., 1861, 79.—Looss, 1899b, 554, 656 (type of *Hapalotrema*).—Moniez, 1896, 143.—Mont., 1896, 144, renamed *mistroides*.—Stoss., 1895, 230.
- constructum* Staff., 1900, 407, misprint for *D. constrictum* Leared.
- continuum* Ariola, 1899, 6–8, pl. 1, fig. 6 (in *Carcharias rondeletti*; Genova).—Linst., 1903, 354.
- contortum* Rud., 1819a, 118, 424–425 (in *Orthogoriscus mola*; Naples), 595.—Bellingham, 1844a, 427.—Braun, 1892a, 578; 1893a, 872, 910.—Cobbold, 1879b, 458.—Crep., 1837, 310, 311.—Dies., 1850a, 394; 1858e, 353 (in *Orth. mola*).—Drago, 1902, v. 15, 20; 1904, v. 79, 4 pp., 1 fig.; 1904, v. 17, 720.—Drumond, —, 240.—Duj., 1845a, 469.—Kroyer, 1852–53a, 745 (in *Orth. mola*).—Lint., 1898, 528–530, pl. 48, figs. 3–7; 1901, 415 (in *Mola mola*), 422, 466.—Looss, 1894a, 165, 190; 1899b, 631 (type of *Accacœlium*).—Luehe, 1900, 487.—Mont., 1888a, 7, 8, 12; 1888, 198, 199; 1891, 110; 1893, 13, 14, 19, 22, 23, 27, 29, 30, 32, 33, 34, 36, 37, 40, 44, 46, 47, 61, 64, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 90, 93, 94, 95, 97, 102, 107, 108, 113, 115, 119, 120, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 150, 152, 169, pl. 1, fig. 12, pl. 3, figs. 16, 22, 25, 26, 32, pl. 4, figs. 33–37, pl. 8, figs. 123 (type of *Accacœlium*); 1896, 151, 153.—Olss., 1876, 17.—Sons., 1890, 140 (in *Orth. mola* L.); 1891, 265.—Stoss., 1896, 190, to (*Podocotyle*).
- conum* Huber, 1896a, 578 (refers to Stoss., syn. of *D. conjunctum*=*O. neverca*); see *conus* Crep.
- conus* Crep., 1825, 50–53 (in *Felis catus* dom., *Canis vulpes*); 1837, 310; 1839, 286, 288.—Baillet, 1866b, 105 (includes *Amphist. truncatum* Rud.).—R. Bl., 1891, 610 (syn. *D. conjunctum*).—Braun, 1892a, 580, 613, 663, 699; 1893a, 875; 1893f, 382, 383, 384, 386, 387, 388, 389, 390, 391, 424 (of Sons. in dogs and cats in Italy, syn. of *D. felineum*); 1893g, 802 (= *Amphist. truncatum* Rud.).—Cobbold, 1875n, 819 (*Distoam*); 1884g, 976.—Dies., 1850a, 404 (syn. of *Amphist. truncatum*); 1858e, 349–350 (in *Canis vulpes*; *Felis catus* dom.) (to Dist.).—Duj., 1845a, 331, 440.—Hahn & Lefèvre, 1884a, 538.—Hilgendorf, 1870, 566–567.—de Jong, 1896a, 2, 3, 4, 6.—Kamensky, 1900a, 5.—Leuck., 1863a, 589.—Linst., 1878a, 43, 44.—Moniez, 1896, 136, 139.—Sons., 1889, 273, 276, 277, 278, 279, 280, 281 (syns. *Amphist. truncatum* Dies., *D. campanulatum* Erc., *D. conjunctum* Cobbold, *D. felineum* Rivolta, *D. truncatum* Erc.); 1890, v. 7 (3), 15 Feb., 134–138.—Stoss., 1892, 24, 25 (includes *D. truncatum* Erc., *D. conjunctum* Cobbold, *Amphist. truncatum* Dies.) (in *Vulpes vulgaris*; *Canis fulvus*, America; *Canis familiaris*, Pisa; *Felis domestica*).—Wagener, 1857, 102, pl. 22, figs. 1, 2; 1858, 102.—Ward, 1895, 341 (see *D. truncatum*) (in *Canis familiaris*).
- conus* of Gurlt, 1831, 193, 373–375, pl. 8, figs. 34–36 (nec Crep., 1825).—Braun, 1893f, 383, 384, 385, 386, 387, 389, 390, 422 (syn. of *D. felineum*); 1903, 3 ed., 157 (syn. of *Opisthorchis felineus*).—Dies., 1858e.—de Jong, 1896a, 10.—Rail., 1893a, 361 (= *D. fel.*).—Ward, 1895, 243 (syn. of *D. fel.*), 328 (in Homo), 341 (in *Canis fam.*); 1903, 869 (syn. of *Opisth. fel.*).
- conus* of Sons., 1889 (sub *D. truncatum*), see *felineus*.—Braun, 1892, 580, 613, 663, 699; 1893, 874; 1893e, 348, 349, 350, 352; 1893f, 386, 424.

DISTOMA—Continued.

- convolutum* Brand., MS. in Braun, 1901f, 565, in *Platalea ajaja*; 1902b, 24 (syn. of *Mesaulus grandis*).
- cornifrons* Leidy, 1878, 382–383 (in *Donax fossor*).
- cornu* Zed., 1800a, 180–181, pl. 2, fig. 1–3 (in *Ardea cinerea*; Europe).—Dies., 1850a, 327 (to *Monost.*).—Nord., 1840, 627 (to *Amphist.*).—Rud., 1809a, 346 (to *Amphist.*).
- coronarium* Cobbold, 1861e, 119 (in *Alligator mississippiensis*; died in England); 1864, 17; 1879b, 455 (All. miss.).—Braun, 1892a, 699; 1899, 630; 1901b, 34.—Looss, 1896b, 114, 117, 118; 1899b, 575, 581, to *Acanthost.*—Luehe, 1899, 532.—Par., 1896, 7–9, fig. 3, to (*Echinost.*).—Pavesi, 1881, 294.—Stoss., 1895, 230; 1899.—Also reported for *Crocodylus americanus*.
- coronatum* Rud., 1819a, 686 (in *Didelphis? virginiana*; Brazil).—Braun, 1900, 27; 1901e, 318, 319, 320, 323.—Cobbold, 1879b, 432.—Dies., 1850a, 400 (to *Rhopalophorus*).—Duj., 1845a, 425.—Looss, 1899b, 581.—Stiles & Hass., 1898a, 93, 96 (type of *Rhopalias*).—Stoss., 1892, 30–31 (to *Echinost.*).
- coronatum* Wagener, 1852, 567–569, figs. 4–6 (in *Corvina nigra*; Nice).—Braun, 1892a, 579, 583, 643; 1901b, 34, 1901, 568; 1902b, 28, 30, 31.—Carus, 1884, 127.—Dies., 1856, 64; 1858e, 352 (in *Corvina (Sciæna) nigra*).—Looss, 1899b, 578, 581, 582, 583, type of *Anoikost.*—Mont., 1893, 84 (? of Dies. or of Wag.).—Stoss., 1885, 157; 1886, 37.
- coronatum* Rentsch, 1860, 38, pl. 11, fig. 2a, 41 (in *Gasterosteus spinachia*).
- corpulentum* Lint., 1905, 327, 334, 378, 382, figs. 180–182 (in *Lagodon rhomboides*, *Orthopristis chrysopterus*; Beaufort, N. C.).
- corrugatum* Duj., 1845a, 409–410 (in *Sorex tetragonurus*; Rennes), to (*Brachylaimus*).—Braun, 1901e, 341, 342.—Cobbold, 1879b, 296.—Dies., 1850a, 360.—Stoss., 1892, 13.
- corvinæ* Stoss., 1886, 46–47, pl. 7, fig. 29 (in *Corvina nigra*; Trieste); 1886, 36; 1898, 56; 1899, 15.—Braun, 1892a, 579; 1902b, 31.—Looss, 1899b, 578, 581.—Mont., 1893, 83.
- coryphænæ* (Bosc., 1802) Rud., 1809a, 436–437 (includes *Fasc. fusca* Bosc., 1802; *F. cory.* Bosc., 1802; *F. caudata* Bosc., 1802; *F. coryphænæ hippuridis* Tilesius); 1819a, 122, 685 (in *Coryphæna hippuris*).—Baird, 1853a, 60 (syn. of *Hirudinella ventricosa*).—Cobbold, 1879b, 460 (*coryphenæ*), 461 (*coryphænæ*).—Dies., 1850a, 367 (syn. of *D. clavatum* Rud.), 373 (syn. of *D. tornatum* Rud.).—Poir., 1885, 6.
- coryphenæ* Cobbold, 1879b, 460, for *coryphænæ*.
- coryphænæ* Cobbold, 1879b, 461, for *coryphænæ*.
- [*costæ* D. Valle (a tunicate).]
- cranium* Huber, 1896a, 575, misprint for *crassum*=*buskii*.
- crassicaudatum* Busch, 1851, 99–100, pl. 15, fig. 13 (in *Sagitta*).—Wagener, 1860, 166.
- crassicolle* Rud., 1809a, 378–379 (in *Salamandra atra*) (*Fasc. salamandræ* Frelich, renamed); 1819a, 102, 385–386.—Baird, 1853a, 52.—Braun, 1892a, 603, 681; 1893a, 881; 1895b, 128, fig. 45.—Cobbold, 1860a, 18.—Crep., 1837, 316; 1846, 147, 148.—Dies., 1850a, 356; 1858, 339 (in *Triton marmoratus*).—Duj., 1845a, 404–405, to (*Brachycoelium*).—Kampmann, 1894b, 454, 457.—Kerbert, 1881a, 536, 573.—Linst., 1887, 97, 98.—Looss, 1894a, 1, 82, 83, 84; 1899b, 611, 612, 613, 614, 618; 1902m, 705, 769, 773, 774, 816, 821, 822 (type of *Brachycoelium*).—Luehe, 1899, 536; 1900, 562, 563.—Minot, 1878a, June 11, 1–12, pl. 1, figs. 1–17.—Mont., 1888a, 25, 38.—Olfers, 1816, 45.—Par., 1896, 2; 1896, 13–16 to (*Dicrocoelium*) (includes *D. enterarchos* Fil., *D. salamandrinæ perspicillatæ* Sons.).—Pontallié, 1853, 211–219.—Stiles, 1901, 196, 198, 199, 200, 201, 202.—Stiles & Hass., 1898a, 83, 97 (type of *Brachycoelium*).—Stoss., 1889, 63; 1895, 214–215; 1897, 9; 1898, 32.—Ziegler, 1883, 545.—Also reported for *Anguis fragilis*, *Rana temporaria*, *Salamandra maculosa*, *Salamandrina perspicillata*, *Triton alpestris*, *T. cristatus*, *T. punctatus*, *T. tæniatus*.
- crassiusculum* Rud., 1809a, 373, 408–409, 429 (in *Falco melanaetus*) (*Plan. bilis* Braun renamed); 1819a, 112.—Braun, 1891d, 424 (in *Circus æruginosus*); 1892a, 583, 584, 610, 663; 1893a, 875; 1893, 353; 1893f, 426; 1901, 561; 1902b, 8, 10.—Cobbold, 1860a, 15.—Crep., 1837, 326; 1846, 129.—Dies., 1850a, 376 (includes *D. felleum falconis chrysaëti* Viborg); 1858e, 353 (in *Falco buteo*).—Duj., 1845a, 441–442.—Linst., 1873, 99.—Looss, 1896b, 58; 1899b, 677 (to

DISTOMA—Continued.

- Metorchis*.—Mont., 1893, 15.—Mueh., 1898, v. 1, 21, 23-24, 87-89, fig. 1.—
 Olfers, 1816, 46.—Stoss., 1890, 50; 1892, 151.—Wedl., 1857, 244-245, pl. 1,
 fig. 4.—Also reported for *Aquila chrysaetos*, *Archibuteo lagopus*, *A. vulgaris*,
Buteo vulgaris, *Circus aeruginosus*, *C. rufus*, *Colymbus septentrionalis*,
Falco albicilla, *Mergus serrator*, *Nyctea nivea*.
- crassum* Sieb., 1836, 234 (in *Hirundo urbica*) ("Hoden — zwischen dem Porus
 anticus und posticus verborgen"); 1848, 143.—Braun, 1893a, 874; 1902b, 46,
 94-95.—Crep., 1837, 327, 328; 1846, 133.—Dies., 1850a, 397.—Leuck., 1863a,
 587.—Looss, 1899b, 557.—Poche, 1907, 126.—Stoss., 1892, 156.—Also reported
 for *Hirundo domestica*.
- crassum* Cobbold, 1860a, 5-6 (*buskii* Lankester, renamed; in *Homo*); 1864a,
 192-194, fig. 42; 1866, 6; 1875i, 423; 1876g, 285-296, 1 fig.; 1876h, 210, 211;
 1876i, 297-305, 1 fig.; 1879b, 17, 20-28, 421, 480, fig. 2; 1883, 401; 1884g, 976.—
 Aitken, 1866, 804, 839; 1872, 146, 205; 1874, 58.—Anders, 1903, 6 ed., 1245.—
 Aschoff, 1892, 495.—Bassi, 1875b, 507.—Biermer, 1863a, 395 (*crassum*).—
 Braun, 1883a, 62-63; 1902b, 95; 1903, 3 ed., 153 [syn. of *Fasciolopsis buskii*];
 1906, 159, fig. 90.—Brunet, 1902a, 125.—[Budd, 1845, 399, fig. 20; 1846, 390,
 fig. 20; 1846, 444; 1852, 484, fig. 20; 1857, 494, fig. 20.]—Busk, 1859.—Clarke,
 1894b, 244-245, fig. 21.—Dav., 1877a, lxxvii, 258-259.—Dunglison, 1893, 338,
 820.—Eichhorst, 1901a, 301.—Gamb., 1896a, 63.—Hackley, 1886, 518, fig. —,
 882.—Hahn & Lefevre, 1884a, 541-542, 544.—Harley, 1864a, 62.—Hoyle,
 1890, 538.—Huber, 1896a, 575 (cranium).—Jackson, 1888, 653.—Jacob, 1891a,
 1287.—Jamieson, 1897a, 73.—Kholodk., 1898, 30, pl. 11, fig. 15.—Leidy,
 1891, 234; 1904a, 239-241 (includes *Fasc. magna*).—Leuck., 1863a, 526,
 586-588, fig. 196; 1876, v. 2 (3), 870, 871.—Looss, 1899b, 557, to *Fasciolopsis*;
 1905, 110 [syn. of *Fasciolopsis buskii*]; 1907, Feb. 1, 124.—Manson, 1880,
 May, 66; 1901, 440, 543; 1903, 3 ed., 631, 639.—Moniez, 1896, 114, 115.—
 Mosler & Peiper, 1894, 176.—Oppenheim, 1900, 181.—Packard, —, 522.—
 Rail., 1893a, 363-364 (includes *D. buskii* Lankester, 1857; *D. (Microcoelium)*
buskii).—Roberts, 1888, 673.—Simon, 1897, 223 (cranium).—Sincclair, 1891,
 Dec. 26, 1468.—Smith, 1881, July, 14 [= ? *Tænia solium* or *T. saginata*].—
 Stoss., 1892, 27 (syn. of *D. rathouisi* Poir.).—Verrill, 1870, 171.—Vogt, 1878,
 10, 14.—Wagner, 1883, 121.—Walker, 1891, 5 Oct., 1205, figs. 1-2.—Ward,
 1895, 328 (syn. of *D. buskii*); 1903, 867 (syn. of *Fasciolopsis buskii*).—Wood &
 Fitz., 1897, 335.
- crassum* Olss., 1876, 25, pl. 4, figs. 27-28 (in *Hirundo urbica*) [nec Sieb., 1836].—
 Braun, 1902b, 46 (?) syn. of *Plagiorchis maculosus*, 94, 95.—Looss, 1899b,
 557 (?) syn. of *maculosum* Rud.).
- crassum* Cobbold, of Leidy, 1891, p. p., 234; 1904a, 239-241 (in *Cervus virginianus*,
Bos taurus).—Stiles, 1898a, 51 (syn. of *Fasc. magna*).—Ward, 1895, 253, 332,
 335, 338 (in *Bos taurus*, *Ovis aries*, *Equus caballus*) (p. p. syn. of *Fasc. magna*);
 1903, 866.
- crenatum* (Rud., 1802 [nec Frœlich, 1802]) Rud., 1809a, 387-401, 404-405, pl. 5,
 fig. 1 (in *Gasterosteus aculeatus*); 1810a, 376; 1819a, 110 (syn. of *D. appendi-*
culatum Rud.).—Dies., 1850a, 371 (syn. of *D. app.*).—Lander, 1904a, 1 (to
Hemiurus).—Luehe, 1901, 399 (extensive synonymy), 401 (not Rud., 1810, 376,
 from *Salmo salar*), 402.—Mont., 1891, 497, 522.—Odhn., 1905, 352 (type of
Brachyphallus).—Olfers, 1816, 46.—Wagener, 1860, 166, 183 (in *Gast. ac.*).
- crenatum* Mol., 1859, 840-842, pl. 1, fig. 3 (in *Centrolophus pompiilus*; Padua).—
 Braun, 1893a, 873.—Carus, 1884, 125.—Looss, 1899b, 640 (to *Hemiurus*).—
 Luehe, 1901, 399 (not Rud.), 402 (cf. *D. excisum* Rud.).—Odhn., 1905, 352
 (to *Brachyphallus*).—Stoss., 1886, 14; 1898, 27.
- [*crystallinum* Ren. (a tunicate).]
- cristatum* Rud., 1819a, 117-118, 422-423 (in *Stromateus fiatola*; Arimini).—Carus,
 1884, 128.—Cobbold, 1860a, 37.—Crep., 1837, 311.—Dies., 1850a, 393.—Duj.,
 1845a, 432.—Mont., 1893, 193.—Stoss., 1886, 47.—Also reported for *Hippo-*
campus brevirostris.
- croaticum* Stoss., 1889, 183-184, pl. 4, figs. 5-7 (in *Carbo graculus*; Fiume, Croazia);
 1890, 131; 1892, 165 (to *Echinost.*).—Braun, 1891d, 421; 1892a, 763, 765; 1893a,
 911.—Reported for *Carbo cormoranus*.
- crocodili* Poir., 1886, 30-32, pl. 1, figs. 4-5 (in *Crocodilus siamensis*).—Braun, 1892a,
 722.—Looss, 1899b, 575, 578.—Mont., 1893, 43-83, 86, 95, 102.
- crotali* Humboldt [an arachnoid, now in *Porocephalus*].—Dies., 1836, 21; 1850a,
 612 (syn. of *Pentast. proboscideum*).—Leidy, 1850b, 97 (syn. of *Pentast.*

DISTOMA—Continued.

- prob.); 1904a, 32.—Nord., 1840, 645 (to *Porocephalus*).—Rud., 1809a, 433.—Stiles, 1891a.
- crotali durissi* Rud., 1809a, 433 (for *crotali*), 434; 1814a, 103; 1819a, 124 (syn. of *Pentast. proboscideum*).
- crucibulum* (Rud., 1819) Duj., 1845a, 435, to (Crossodera) (in *Muræna conger*; M. cassini).—Dies., 1850a, 322 (to *Monost.*).—Tennent, 1906, 640 (to *Gasterost.*).
- cryptobothrium* Ben., 1870, 1871a, 31, pl. 5, fig. 16 (in *Trigla gurnardus*; Belgium).
- crystallinum* Rud., 1819a 100, 380–382, 595 (in *Rana esculenta*, *R. temporaria*, *Bufo viridis*, *B. igneus*, *Vipera berus*; Berlin).—Bettend., 1897, 308, 311, fig. 28, fig. 4; 1897a, 4, 7, pl. 1, fig. 4.—Brand., 1888a, 14.—Braun, 1893a, 875.—Dies., 1850a, 352 (to *Dist.*); 1858e, 338.—Duj., 1845a, 453–454.—Hannover, 1864a, 3 (*chrySTALLinum*).—Pag., 1857, 39, 46, pl. 4, fig. 6 (in *Frosch*).
- cteniceps* Leidy MS. in Stiles & Hass., 1894d, 249 (manuscript name found in bottle containing parasite of Muskrat, published as *D. echinatum*; see Leidy, 1888, 126–127) (in *Fiber zibethicus*).
- cucumerinum* Rud., 1809a, 360–361 (in *Avis riparia*; gen. sp. incert.); 1819a, 94.—Braun, 1899f, 465–468 (is a *Monost.*); 1901, 561.—Dies., 1850a, 338 (to *Dist.*).—Olfers, 1816, 44.—Stoss., 1902, 9, 32 (to *Typhlocœlum*).
- cuneatum* Rud., 1809a, 358–359 (in *Otis tarda*); 1819a, 93 (*Greifswald*).—Anacker, 1892c, 94.—Braun, 1893a, 877; 1893d, 467; 1901, 13, 15; 1901, 561; 1902b, 69, 72, 73, 74, 79 (=*D. ovatum* autt. (nec *D. ov. Rud.*); *Fasc. ov. Rud. part*) (to *Prosthogonimus*).—Cobbold, 1860a, 9.—Crep., 1846, 134.—Dies., 1850a, 336 (to *Dist.*) (in *Otis tarda*; (*Gryphæ*, Rud., intestine) (in *Pavo cristatus*, Gurli).—Duj., 1845a, 445.—Looss, 1899b, to *Prosthogonimus*.—Luehe, 1905, 159.—Olfers, 1816, 44.—Schneidemuehl, 1896, 303 (*kuneatum*).—Stoss., 1892, 180.
- cuspidatum* Looss, 1896b, 97–101, 104, pl. 7, figs. 64–65 (in *Milvus parasiticus*; Matarieh); 1899b, 578, 581, 584 (type of *Centrocestus*).—Braun, 1901b, 34.
- cyclopteri* Rud., 1809a, 438 (in *Cylopterus lumpus*); 1819a, 121.—Dies., 1850a, 373 (syn. of *Dist. reflexum*), 398.—Stoss., 1886, 47.
- cygni oloris* Dies., 1858e, 344 (syn. of *D. echinatum*), based on Bellingham, 1844a, 427.
- cygnoides* Zed., 1800a, xxiv, 163, 175–176 (in *Rana esculenta*); 1803a, 213.—Baird, 1853a, 51.—Ben., 1858a, 1861a, 189, 203, 214.—Bensley, 1897a, 326–331, figs. 1–6 (2 forms); 1897, 293.—Braun, 1883a, 56; 1892a, 569, 634, 635, 698, 711, 712, 761, 762, 764, 768, 773, 776, 780, 782, 783, 785, 788, 790, 797, 798, 806; 1893a, 854, 865, 876, 882; 1893d, 467; 1895b, 18, 129; 1899g, 492 to *Phyllodist.*; 1901b, 9, 10, 12; 1902b, 22.—Cobbold, 1858b, 162; 1860a, 15; 1872b, 91; 1879b, 49, 454.—Crep., 1837, 310, 323, 324, 326.—Desmonceaux, 1868, 21.—Dies., 1850a, 342 (includes *D. hylæ* Rud.); 1858d, 272; 1858e, 334 (to *Dist.*) (*Cerc. Acanthocephala macrocerca*) (adult in *Pelophylax esculentus*; *Bombinator igneus*; *Dendrohyas viridis*; *Rana temporaria*; *R. pipiens*; *R. palustris*; *R. halecina*; *Salamandra maculata*; *S. (Amblystoma) rubra*; *S. salmonea*; young in *Pelophylax esculentus*; larva in *Cyclas cornea*).—Duj., 1838a, 7 (embryo); 1838c, 47; 1845a, 396–397 to (*Dicrocœlium*).—Fil., 1855b, 24, 25; 1857c, 32.—Florance, 1866a, 6, 12.—Fraip., 1880c, 418.—Gamb., 1896a, 72.—Hahn & Lefèvre, 1884a, 516.—Kampmann, 1894b, 446.—Kerbert, 1881a, 566, 575.—Kowal., 1894, 3.—Leidy, 1851b, 207; 1856, 44; 1904a, 48–49 (in *Rana pipiens*, *Salamandra maculata*, *S. (Amblyostoma) rubra*), 87 (in *R. palustris*, *R. halecina*, *S. salmonea*).—Leuck., 1863a, 511; 1886d, 40.—Linst., 1873, 1 (young=*Cerc. macrocerca* Fil.); 1887, 97, 101.—Looss, 1885b, 24; 1892a, 125; 1893b, 813, 815; 1894a, 2, 23, 56–64, 82, 110, 125, 127, 136, 137, 138, 153, 154, 159, 162, 168, 169, 174, 178, 182, 184, 189, 200, 201, 204, 206, 211, 215, 216, 227, 230, 244, 251, 253, 256, 269, 275, pl. 1, figs. 23–26, pl. 6, figs. 124–132 (in *Bombinator igneus*; *Hyla arborea*; *Rana esculenta*; *R. temp.*); 1896b, 46; 1899b, 605–606, type of *Gorgodera*, 607; 1902m, 784, 807, 810, 846, 851.—Loschge, 1785, 10–14, pl. 1, figs. a–e.—Luehe 1900, 558; 1901, 58.—Miescher, 1840c, 39–42 (in *R. esc.*).—Mol., 1859, 833 (in *Pelophylax esculentus*; *Padua*).—Mont., 1888a, 40, 80 (*cignoides*); 1893, 82, 148, 149; 1896, 166.—Moul., 1856, 48, 99, 161 (*Cerc. macrocerca* is larva of; teste Fil.).—Mueh., 1898, 27–28.—Nord., 1840, 617 (*sygnoides*, misprint).—Odhn., 1902, 64, 65.—Olfers, 1816, 44.—Osborn, 1903, 256.—Pachinger, 1883, 46 pp.—Pag., 1857, 28, 30, 44–46, 47, 52, pl. 6, fig. 1 (in green frog).—Par., 1887, 60; 1887, 332–333; 1887, 490.—Rossbach, 1906, 377, 388.—Rud., 1809a, 367–368; 1819a, 96, 370–371.—Schuberg, 1875, 169.—Sieb.,

DISTOMA—Continued.

- 1835, 66, 82; 1842, 298.—Sons., 1890, 136; 1893, 187 (cygnoidis) (in *Rana* esc.); 1893, 217.—Sinitzin, 1905, 33, 34; 1906, 682 (in *Rana temporaria*, *R. esculenta*; Warschau) (of Looss, named *Gorgodera loossi*; of Pag., renamed *G. pagenstecheri*), 684.—Staff., 1900, 405, 409; 1902, 18 Dec. (American), 411, 412, 421, 482, to (*Gorgodera*) (in frogs and toads), 895; 1903, 15 Dec., 901; 1905, July, 51–52.—Stiles, 1896, 205.—Stoss., 1889, 60.—Valentin, 1841, 51–54.—Will.-Suhm, 1870, 4.—Wagener, 1857, 26, 27, 29–30, 34, 35, 40, 42, 43, 44, 45, pl. 30, fig. 1, pl. 31, fig. 1, pl. 32, fig. 36A, 7.—Walter, 1866, 64.—Reported also for *Dendrohyla viridis*, *Bombinator* sp.; *Bufo igneus*, *B. vulgaris*, *Cyclas*, *Limnæa* sp.; *Piscidium*; *Rana catesbiana*, *R. clamitans*, *R. virescens*, *Salamandra maculosa*.
- cygnoides* var. A. of Bensley, 1897a.—Staff., 1902, 419–421 (syn. of *Gorgodera ampli-cava*).
- cygnoides* var. B. of Bensley, 1897a.—Staff., 1902, 417 (syn. of *Gorgodera simplex*).
- cygnoides ranæ* Wagener, 1857, 19–24.
- cygnoidis* Sons., 1893, 187, for *cygnoides*.
- cylindraceum* Zed., 1800a, 164, 188–190, pl. 4, figs. 4–6 (in *Rana esculenta*); 1803a, 217.—Baird, 1853a, 51.—Bellingham, 1844a, 424.—Ben., 1858a, 1861a, 193.—Bettend., 1897a, 4, 5, 7, 10, pl. 1, fig. 6; 1897, 308, 309, 311, 312, 314, pl. 28, fig. 6.—Blochmann & Bettend., 1895a, 217, fig. 2.—Brand., 1891c, 730; 1891d, 7, 12.—Braun, 1890d, 568; 1892a, 568, 586, 589, 593, 597, 599, 602, 608, 635, 640, 641, 643, 671, 677, 682, 683, 684, 685, 698, 703, 707, 717, 719, 726, 729, 733, 737, 751, 754, 759, 760, 762, 763, 768, 773, 780, 783, 785, 788, 790, 806; 1893a, 865, 876, 882, 910.—Cobbold, 1858b, 162 (in *Rana temporaria*); 1860a, 17.—Crep., 1837, 310, 323, 326.—Dies., 1850a, 368 (includes *Fasc. subclavata*); 1858e, 351 (in *Rana oxyrrhinus*; *R. platyrhinus*).—Duj., 1845a, 395–396.—Galli-Valerio, 1898n, 371–373; 1899b, 186–187; 1901c, 365 (in *Rana esculenta*).—Gamb., 1896a, 72.—Hausmann, 1897b, 14.—Hoimann, 1899, 196.—Jackson, 1888, 650 (reproductive system).—Knoch, 1862, 101.—Kowal., 1894, 3; 1895, 372–390, pl. 8, fig. 9.—Linst., 1887, 97; 1890f, 173–191, 2 pls., figs. 1–39; 1891a, 241–242; 1904, 254.—Looss, 1885b, 6; 1893b, 811, 815; 1894a, 1, 2, 7, 37 (*cylindraceum*), 64–71, 72 (of Pachinger, 1888, syn. of *D. variegatum*), 73, 74, 75, 76, 77, 85, 86, 87, 115, 119, 125, 127, 135, 139, 144, 146, 148, 159, 163, 167, 175, 180, 181, 191, 192, 194, 199, 206, 215, 220, 221, 227, 230, 242, 268, pl. 2, figs. 39–42, pl. 7, figs. 147–152, pl. 8, 163 (includes *Fasc. subclavata*) (in *Hyla arborea*; *Rana* esc.; *R. temp.*); 1899b, 556, 559–600 (type of *Haplometra*); 1902m, 620.—Luehe, 1899, 533.—Mont., 1888a, 73; 1893, 25, 27, 33, 36, 42, 43, 48, 61, 83, 91, 102, 106, 107, 108.—Moul., 1856a, 49.—Mueh., 1898, 26.—Nord., 1840, 617, 620 (to *Fasc.*).—Olfers, 1816, 46.—Olss., 1876, 14; 1893, 10.—Pag., 1857, 43, pl. 5, figs. 3, 4 (in brown frogs).—Rhumbler (1895), v. 4, 553–554.—Rud., 1809a, 336, 349, 393–394; 1819a, 106.—Schauinsland, 1882, 496, 497.—Sieb., 1835, 82; 1852, 1, 16.—Sons., 1893, 187 (in *Rana* sp.).—Staff., 1902, 909.—Stoss., 1889, 65.—Swammerdam, 1737, 315.—Volz, 1899, 232.—Walter, 1866, 64.—Ziegler, 1883, 488; 1883, 546, pl. 33, fig. 26.—Reported for *Bufo vulgaris*; *Ilybius fuliginosus*; *Limnæa ovata*; *Rana fusca*; *R. oxyrrhinus*; *R. palustris*; *R. platyrhinus*.
- cylindraceum* Zed. of Pachinger, 1888.—Looss, 1894a, 71, 72 (syn. of *D. variegatum* Rud.).
- cylindricum* (Gœze, 1782) Mayer, 1841a, 26, 34.—Looss, 1894a, 71 (syn. of *D. variegatum*).
- cylindricum ranæ* Mayer, 1841a, 18–19, pl. 3, figs. 13, 17.
- cymbiforme* Rud., 1819a, 96, 371 (in *Testudo mydas*; Arimini).—Braun, 1893a, 876 to *Phyllodist.*; 1893d, 467; 1899b, —, 715, 720–721; 1899g, 492 (to *Phyllodist.*); 1901b, 9, 10, 11, 12; 1902b, 19.—Carus, 1884, 129.—Cobbold, 1860a, 18.—Dies., 1850a, 342 (in *Halichelys atra*).—Duj., 1845a, 451.—Looss, 1899b, 605 (to *Spathidium*); 1901b, 202, 203, 204, 205, 207 (resembles *Spathidium* = *Phyllodist.*, but lacks pharynx, hence was made type of a new genus, *Plesiochorus*); 1901, 557; 1902m, 411, 469, 476, 477, 478, 481 (to *Plesiochorus*).—Mont., 1896, 165 (*cimbiforme*).—Odhn., 1902, 37; 1902, 64, 65, 67.—Par., 1846.—Sons., 1893, Feb. 5, 2; 1893, 183, 184, 185 (in *Chelonia caretta*).—Stoss., 1895, 38, pl. 4, fig. 1; 1895, 215–216; 1897, 9; 1898, 34–35.—Reported for *Chelone caretta*; *C. mydas*; *Chelonia midas*; *Thalassochelys caretta*; *T. corticata*.
- cymbuliæ* delle Chiaje (1841a), 109, fig. 29?.—Pag., 1862, 298.

DISTOMA—Continued.

- cyprinaceum* Zed., 1800a, 164, 181-183 (intest. Cyprinorum).—Dies., 1850a, 341 (syn. of *D. globiporum*).—Looss, 1894a, 41 (syn. of *D. glob.*); 1902m, 763 (and *Sphaerost. glob.*).—Rud., 1809a, 365, 367.—Stiles, 1901r, 168.
- cyprini idi (peritonei)* Dies., 1858e, 367 (based on Duj., 1845a, 463) (as ? syn. of *Tetracotyle echinata*) (in *Leuciscus idus*, *Acerina cernua*).
- cysticola phalangii opilionis* Dies., 1855, 64, based on Crep., 1846, 156, see *cystidicola*.
- cysticum* Crep., 1846a, 159 (in *Planorbis* sp.), refers to Henle, 1835, 597.—Also reported for *Planorbis marginatus*, *Nephele vulgaris*.
- cystidicola* Crep., 1846a, 156 (in *Phalangium opilio*); 1851, 304.—Dies., 1858e, 356 (in *Phal. opilio*).
- dactyliferum* Braun, 1892a, 568, for *dactylipherum*.
- dactylipherum* Poir., 1885, 10, pl. 23, fig. 3 (in *Argonauta*).—Braun, 1889a, 395 (*dactyliferum*); 1892a, 568 (*dactyliferum*); 1893a, 873.—Buttel-Reepen, 1902, 167, 172, pl. 6, fig. 14.
- deflectens* Rud., 1819a, 677-678, 745 (in *Sylvia* sp., *Motacilla* sp.; Brazil).—Braun, 1901, 561, 563; 1902b, 101 (to *Dicrocoelium*), 102.—Cobbold, 1860a, 12.—Dies., 1850a, 347 (in *Thryothorus hypoxanthus*; Brazil).—Duj., 1845a, 433-444.—Stoss., 1892, 180; 1892, 38.
- delicatum* Rud., 1809a, 373-374 (in *Anas sponsa*); 1819a, 99.—Blainv., 1828a, 585 (to *Fasc.*).—Braun, 1893a, 875; 1901, 561.—Cobbold, 1860, 10.—Dies., 1850a, 352-353.—Duj., 1845a, 449.—Kowal., 1897b, 1, 2 [reprint]; 1898h, 132.—Olfers, 1816, 44.—Odhn., 1900, 19.—Stoss., 1892, 180.—Also reported for *Cygnus olor*.
- deliciosum* Olss., 1893, 10, pl. 1, figs. 16-18 (in *Larus argentatus*).—Odhn., 1900, 12, 13; 1905, 311 (to *Gymnophallus*).
- delphini* Poir., 1886, 34-36, 37, pl. 4, figs. 1-3 (in *Delphinus delphis*).—Braun, 1892a, 673; 1893a, 874, 910; 1893, 354; 1900g, 251.—Looss, 1894a, 204; 1899b, 560 (to *Brachycladium*).—Mont., 1888a, 12, 38; 1893, 44, 45, 83, 86, 102, 107.—Stiles, 1895l, 219, pl. 8, figs. 1-3.—Stoss., 1892, 10 (to *Cladocœlium*).
- dendricum* Ben., 1870, 36, for *dendriticum*.
- dendriticum* Rud., 1819a, 93, 364-365 (in *Xiphias gladius*).—Ben., 1870, 36.—Carus, 1884, 131.—Cobbold, 1860, 22.—Darr, 1902, 698.—Dies., 1850a, 336.—Duj., 1845a, 460.—Jacoby, 1900, 10, 11.—Kroyer, 1838-40a, 597 (in *Xiphias gladius*).—Looss, 1899b (to *Dicrocoelium*).—Par., 1896, 16-18, fig. 6 to (*Dicrocoelium*).—Stoss., 1886, 47.
- dentatum* Lint., 1900a, 269, 283, 289, 294, pl. 39, figs. 64-67 (in *Paralichthys dentatus*); 1901b, 415, 421, 451, 483; 1905, 328, 334, 369, 372, 374, 396, 411, 413, 415 (in *Coryphæna equisetis*, *Lophopsetta maculata*, *Micropogon undulatus*, *Paralichthys albiguttus*, *P. dentatus*, *Pomatomus saltatrix*, *Rachycentron canadus*; Beaufort, N. C.).—Odhn., 1905, 331.
- denticulatum* (Rud., 1802) Rud., 1809a, 424-425, pl. 5, fig. 3 (in *Anas clypeata*, *Sterna hirundo*) (to *Echinost.*); 1819a, 116, 419.—Crep., 1837, 311.—Dies., 1850a, 391-392.—Duj., 1845a, 430.—Olfers, 1816, 47.—Stoss., 1892, 170 to *Echinost.*—Also reported for *Anas sponsa*.
- depressum* Polonio, 1859 (in *Triton cristatus*; Padua) teste Par., 1894, 149.—Braun, 1892a, 579, 663.
- depressum* Stoss., 1883, 118, pl. 3, fig. 10 (in *Dentex vulgaris*; Triest); 1886, 24; 1898, 39-40.—Carus, 1884, 130.
- detruncatum* (Braun, 1899) Braun, 1900h, 28 (in *Mycteria americana*), 33 to (*Clinost.*, 35 (from *Tantalus loculator*) to (*Clinost.*), 39.
- dicorynum* Dies., 1850a, (359, *D. affine*), 680, *affine* renamed (in *Lampris guttatus*).—Ben., 1870, 34.—Kroyer, 1838-40a, 598.—Stoss., 1886, 47.
- dictyotus* Mont., 1893, 156 (includes *D. reticulatum* Looss, 1885 [nec Wright]).—Braun, 1900, 26.—Looss, 1894a, 171.—MacCallum, 1899, 705.—Stiles & Hass., 1898a, 86 (*D. reticulatum* Looss, 1885 [nec Wright, 1879], (type of *Mesogonimus*)).
- didelphidis* Par., 1896, 3-5, fig. 1a (in *Didelphys azaræ*).—Luehe, 1899, 532.—Stoss., 1904, 2 (*didelphydis*).
- didelphydis* Stoss., 1904, 2, for *didelphidis*.
- diesingi* Braun, 1901, 561, 563, for *diesingii*.

DISTOMA—Continued.

- diesingi* Cobbold, 1860a, 14 (D. cochlear Dies., renamed; in *Sterna cantia*, S. minuta; Brazil).—Braun, 1901, 561, 563 (diesingi); 1902b, 56, 58 (syn. of *Microlistrum cochlear* (Dies., 1850a)).—Stoss., 1892, 179 (syn. of D. cochlear).
- diffusocalciferum* Gastaldi, 1854, 5-6, pl. 1, figs. 4-5 (in *Rana esculenta*).—Braun, 1893a, 870.—Cobbold, 1860a, 18.—Dies., 1855, 64 footnote (D. *diffusocalciferum ranæ esculentæ*); 1858e, 336 (in *Pelophylax esculentus*).—Stoss., 1889, 69.
- diffusocalciferum ranæ esculentæ* Gastaldi of Dies., 1855, 64 footnote (see D. *diffusocalciferum* Gastaldi).
- dilatatum* Fischer de Waldheim, 1840, 158 (in *Gallus communis*; Vilnæ).—Anacker, 1887c, 513.—Baillet, 1866b, 105.—Braun, 1893a, 874.—Caruccio, 1886b, 293.—Cobbold, 1879b, 440.—Crep., 1846, 134.—Dies., 1850a, 383-384.—Hahn & Lefèvre, 1884a, 516 (of Miram.).—Hass., 1896a, 2, 3 (syn. of *Echinost. echinatum* (Zed.)).—Landois, 1882, 23.—Linst., 1873, 106.—Stoss., 1892, 167 (syn. of *Echinost. ech.* (Zed.)); 1898, 52.—Verrill, 1870, 179.
- dilutatum* Schneidemuehl, 1896, 303, misprint for *dilatatum*.
- dimidiatum* Crep., 1829, 55-56 (in *Acipenser sturio*).—Dies., 1850a, 372 (syn. of D. *grandiporum* Rud.).—Duj., 1845a, 470.—Mehlis, 1831, col. 176-177.—Mol., 1859, 826 (D. *grandiporum* Rud.).—Odhn., 1905, 360 (syn. of *Derogenes varicus* (Mueller) Odhn.).
- dimorphum* [see below] Dies., 1850a, 353-354 [contains D. *marginatum* Rud., 1819a, 680, and Duj., 1845a, 446] (in *Salmo carapus*, *Geophagus poppoterra*, *Chætobranchus flavescens*, *Crenichichla johanna*, C. *lepidota*; Ardea, *Ciconia americana*, C. *mycteria*, Ardea *cocoi*; Brazil); 1855c, 55-56, pl. 3, figs. 1-6; 1855, 363; 1858e, 338.—Braun, 1892a, 699, 735; 1893a, 865, 871, 872, 873, 874; 1893, 354; 1899g, 485, 486, 490; 1900c, 25, 26, 28-29; 1900h, 4, 18, 25, 32, 33, 34, 36, 42; 1902b, 116.—Cobbold, 1860a, 10.—Gamb., 1896a, 72 (in Ardea *ciconia*; Brazil).—Looss, 1899b, 651 (from Ardea *cocoi*; Brazil).—MacCallum, 1899, 697, 706, 707.—Mont., 1893, 155 (in Gallo *comune*).—Sons., 1889, 283.—Stoss., 1886, 25; 1892, 181.—Also reported for *Carapus brachyurus*, *Hydrolichus scomberoides*.
- dimorphum* Dies., 1850a, 354, pars (in Ardea *cocoi*, A. sp., *Mycteria americana*; in Brazil, collected by Natterer).—Braun, 1899g, 490, is *Clinost. marginatum* (Rud., 1819a); type is no. 1493, Berlin Museum; and nos. 343, 750, and 831, Vienna Museum; 1900h, 25.
- dimorphum* Dies., 1850a, 353, pars, in *Tantalus loculator*; in Brazil, collected by Natterer.—Braun, 1899g, 490, is *Clinost. sorbens* Braun n. sp.; type is no. 878, Vienna Museum; 1900h, 34.
- dimorphum* Dies., 1850a, 354, pars, in *Ciconia americana*, *Mycteria americana*; in Brazil, collected by Natterer.—Braun, 1899g, 490, is *Clinost. detruncatum* Braun n. sp.; types are nos. 750 and 882, Vienna Museum; 1900h, 32.
- dimorphum* Dies., 1850a, 353, 354, pars, in Ardea *cocoi*; in Brazil, collected by Natterer.—Braun, 1899g, 490, is *Clinost. dimorphum* (Dies.) Braun; types are nos. 832 and 879, Vienna Museum. [Braun erroneously says n. sp.]; 1900h, 36.
- dimorphum* of Wagener, 1852, 555-557, pl. 16, fig. 1 (from chicken) [nec Dies.].—Braun, 1900c, 25; 1900h, 18 (= D. *commutatum* Dies.).—Dies., 1858e, 339 (renamed D. *commutatum*; in *Phasianus gallus*); 1855, 64, footnote 4.—Hass., 1896a, 3 (syn. of *Mesogonimus commutatus* (Dies.)).—Rail., 1893a, 371 (to *Mesogonimus*).
- distichum* (Mueller, 1776) Zed., 1803a, 215 (in fish).—Cobbold, 1860a, 29.—Dies., 1850a, 378-379.—Rud., 1809a, 402, 440-441; 1819a, 123.
- divergens* Rud., 1809a, 371-372, 395 (in *Blennius viviparus*), Fasc. *blennii* Mueller, renamed; 1819a, 97, 372-373, 676.—Braun, 1892a, 636, 637, 640, 643, 646.—Carus, 1884, 129.—Cobbold, 1860a, 23.—Dies., 1850a, 337, 344.—Duj., 1845a, 461.—Fraip., 1880b, 106, 107, 265 (in *Zoarcas viviparus*); 1881b, 2-4, 24; 1883a, 37.—Harz, 1881c, 5.—Kampmann, 1894b, 447, 449, 459, 460, 461.—Knoch, 1894a, 10.—Kroyer, 1838-40a, 138, 368, 583 (in *Zo. vivip.* Linn., *Cottus scorpius* Linn.).—(Lamouroux, 1824, 863).—Looss, 1885b, 20.—Mont., 1888a, 42, 43, 44, 45, 46; 1893, 62.—Nord., 1840, 619.—Olfers, 1816, 45.—Stoss., 1886, 47.—Also reported for *Blennius cornutus*, B. *gattorugine*, B. *tentaculatus*.
- dubium* (Leidy, 1856) Dies., 1858e, 336.—Stoss., 1892, 181 (includes D. *leidy* Cobbold).

DISTOMA—Continued.

- dujardini* Cobbold, 1860a, 29 (D. soleæ Duj., renamed) (in *Solea vulgaris*).
- duplicatum* Baer, 1826a, 124; 1827b, 558–570, pl. 29, figs. 1–15 (in *Anadonta ventricosa*, A. anatina).—Braun, 1892a, 769, 770; 1893a, 838; 1893b, 184.—Cobbold, 1879b, 453, 454.—Crep., 1837, 310, 325, 326.—Dies., 1836, 240; 1850a, 293 (renamed *Rhopalocerca fardigrada*; *Regiomontii*); 1855a, 380, 384; 1858d, 241, 271.—Desmonceaux, 1868, 22.—Erc., 1881e, 37, 45; 1882a, 273, 281.—Fil., 1854a, 9, 26; 1855b, 7, 20, 22, 24; 1856a, 263, 265; 1857c, 25, 27, 29, 31, 32.—Florance, 1866a, 12.—Keber, 1851a, 90.—Kuech., 1856c, 269, 277.—Lampert, 1894.—Laveran & R. Bl., 1895, 105.—Leuck., 1863, 509, 765.—Levin., 188ia, 81.—Looss, 1894a, 17, 23, 63, pl. 4, fig. 78 (syn. of *Cerc. Dist. folii*, C. folii, young of D. folium).—Moul., 1856a, 14, 21, 51, 56, 78, 82, 120, 129, 139, 143 (to *Cerc.*), 177.—Mueh., 1898, 11.—Nord., 1832a, 57; 1840, 548, 617, 630, 631.—Pag., 1857, 6, 7, 8, 9, 28–30, 46, 52, pl. 6, fig. 14 (in *Anodonta cygnea*); 1862, 299, 300, 301, 302, 304.—Reuss, 1902, May 19, 375–377; 1902, July, 405–406; 1903, 458–477, pl. 23, figs. 1–21; 1903, Nov. 26, 206; 1905, July 3, 63–64.—Rossbach, 1906, 420, 431.—Sieb., 1835, 56; 1854, 109, note 2.—Steenstrup, 1842, 51–55, 56.—Tennent, 1906, 651, 653.—Wagener, 1857, 22, 36, 45, 51, pl. 24.—Ziegler, 1883, 540.
- echeneidis remoræ* Rud., (1821–28) 163 (in *Echeneis remora*).—Braun, 1893a, 875.—Dies., 1855, 64, footnote 16; 1858e, 356 (in *Echeneis remora*).—Stoss., 1886, 47.
- echinata* (Sieb., 1837) Ben., 1861, 89–92, pl. 11, figs. 1–8, in *Limneus auricularis*; L. ovatus; L. stagnalis; Physa; Cyclas cornea.
- echinatoides* Dies., 1858d, 263, syn. of *Cerc. (Nephrocephala) megacotyla*, for *echinatoides anodontæ*.
- echinatoides anodontæ* Pag., 1857, 32 (t. h. *Anodonta cygnea*).—Dies., 1858d, 263 (syn. of *Cerc. (Nephrocephala) megacotyla*).
- echinatum* Zed., 1803a, 220–221 (D. anatis Gmelin, 1790) Zed., 1800, renamed; made to include *Cucullanus conoideus* 1782, *Festucaria anatis* 1788, F. boschadis 1790.—Anacker, 1887c, 513.—Baillet, 1866b, 96, 105.—Baird, 1853a, 55.—Bellingham, 1844a, 426.—Ben., 1858a, 1861a, 89–92, pl. 11, figs. 1–8 (syn. *Cerc. brunnea*, C. echinata); 1868, 296.—Braun, 1883b, 28; 1883a, 70, fig. 14; 1892a, 585, 595, 633, 722, 797, 807; 1893a, 821, 861, 863, 865; 1893b, 182.—Bremser, 1824c, 134; pl. 10, fig. 4–5; 1828, 134 (of birds).—Crep., 1837, 310, 311, 312, 316, 326; 1839a, 289; 1846, 134, 141, 142, 144, 145.—Cobbold, 1860a, 33.—Dies., 1836, 240; 1850a, 344, 345, 346, 383, 398 (includes *Cucullanus conoideus*, D. anatis; D. excavatum (*Nycticorax*) Rud.; D. gruis; D. radiatum Duj.?; Fasc. anatis; F. gruis; *Festucaria boschadis*; Plan. teres poro simplici); 1858d, 261, 263 (larval stage=*Cerc. ech.*); 1858e, 344–345 (adult in *Anas boschas* dom. & fera; A. anser; A. cygnus fer.; A. clangula; A. clypeata; A. ferina; A. fuligula; Ardea comata; A. gardenii; A. grus; A. marila; A. moschata; A. nycticorax; A. nyroca; A. olor; A. pavonia; A. penelope; A. strepera; A. tadorna; Ciconia nigra; Carbo cormoranus; C. pygmaeus; Podiceps cristatus; P. minor; Stat. juven. in *Fringilla domestica*; larva in *Paludina vivipara*; *Lymnæus stagnalis*; *Planorbis corneus*) (syn. *Cerc. (Nephrocephala) ech.*); 1859c, 433 (includes as hosts: *Cyclas cornea*; *Belgia*; *Lymnæus auricularis*; L. ovatus; L. stagnalis; Physa).—Desmonceaux, 1868, 22.—Duj., 1845a, 426–427.—Erc., 1881e, 29, 31, 48, 52, 88; 1882a, 265, 267, 284, 288, 324 (syn. *Cerc. ech.*).—Fil., 1854a, 19; 1855b, 25.—Florance, 1866a, 12.—Fraip., 1880c, 418.—Gamb., 1896a, 63, 72.—Generali, 1881a, 614–615 (in dogs) [Erc.]; 1882a, 70–71.—Giebel, 1857, 265.—Hahn & Lefèvre, 1884a, 516 (of Ben.) (in Canara).—Harz, 1881c, 4.—Hass., 1896a, 2, 3 (to *Echinost.*).—Kastenbaum, 1899, 244, fig. 33, 5, 34, 7.—Kowal., 1894, 3; 1895, 351–352, pl. 8, figs. 1–3, 12a, 13; 1896d, 7 (257) (in *Corvus cornix*; *Anas crecca*; *Dublan*).—Leidy, 1888, 126; 1904a, 211.—La Valette, 1855, 32.—Leuck., 1863, 82, 498, 526, figs. 143, 144, 178, 180; 1879, 15, 102, 107; 1886d, 11, 76, 80.—Linst., 1873, 1, 98, 101, 105–106 (young stage=*Cerc. ech. Sieb.*) (in *Anas boschas*); 1884, 139; 1894b, 333 (in *Bythinia ventricosa*, Physa fontinalis, Valvata macrostoma, *Limnæa palustris*).—Looss, 1892a, 14; 1893b, 813, 814; 1894, 2, 119, 120, 124, 159, 168, 169, 170, 172, 215, 230, pl. 6, figs. 114, 115–117, pl. 9, figs. 191–192; 1895c, 74, 75; 1896b, 10; 1899b, 556; 1902m, 804, 805, 810, 811, 822.—Lutz, 1892a, 785.—Mégnin, 1884, 53.—Mol., 1858, 290; 1861, 216.—Mont., 1888a, 14, 24, 40.—Moul., 1856a, 190 (larva is *Cerc. ech.*, teste La Valette).—Nathusius, 1835, 53.—Nord., 1832a, 47, 90, 98 (in *Barsch*); 1840, 621 (syn. of Fasc. trigonocephala).—Pag., 1857, 244–251 (experimental

DISTOMA—Continued.

- infections); 1858, 5-6; 1859, 58, 60.—Par., 1887, 489.—Rail., 1893a, 366.—Rud., 1809a, 418-420 to (Echinost.), 431, 432; 1814a, 102; 1819a, 115, 121, 416-417, 685-686.—Schneidemuell., 1896, 303.—Schlotthauber, 1860, 129.—Sieb., 1835, 57; 1854, 23.—Sons., 1890, 134.—Stiles & Hass., 1898a, 87, 96 (type of Echinost.).—Stoss., 1890, 51; 1891, 111; 1892, 167 (to Echinost.); 1898, 52.—Tasch., 1879, 71.—Verrill, 1870, 179.—Ward, 1895, 341 (in *Canis familiaris*; duodenum).—Wedl, 1857, 245-246, pl. 1, figs. 5-6.—Zuern, 1882, 207.—Also reported for *Anas clypeata*; *A. querquedula*; *Anser cine-reus dom.*; *Ardea grus*; *A. nycticorax*; *Aythya americana*; *Colymbus minor*; *Cygnus musicus*; *C. olor ferus*; *Fiber zibethicus*; *Fuligula ferina*; *F. marila*; *F. nyroca*; *Hausente*; *Limnæa*; *Paludina vivipara*; *Phasianus gallus*.
- echinatum* (Zed.) of Wedl, 1858, 245, pl. 1, fig. 5, from *Phalacrocorax carbo* is, according to Looss, 1899b, 681, a misdetermination.
- echiniferum* (La Valette, 1855) La Valette, 1855, 32.—Braun, 1892a, 772.—Cobbold, 1879b, 454.—Dies., 1858d, 261, 262, 263 (larval stage = *Cerc.* (*Nephrocephala*) *echinatoides*); 1858e, 345-347 (in Stat. juven. in *Fringilla domestica*); 1859c, 433 (syn. *D. militare* Ben.). 1858a, 84, in *Scolopax gallinago*; *Mergus mer-ganser*; *Podiceps minor*; *Anas boschas*.—Erc., 1881e, 29, 31; 1882a, 265, 267.—Moul., 1856a, 201.—Rail., 1893a, 366 (syn. of *D. echinatum*).—Stoss., 1892, 171 (to Echinost.).—Ward, 1895, 341 (syn. of *D. echinatum*) (in *Canis familiaris*).—Zuern, 1882, 207.
- echiniferum paludinae* Pag., 1857, 30-32, 52, pl. 2, figs. 5-6 (in *Paludina vivipara*); on 55, descr. of pl. 2, *echiniferum*.
- [*echinocephala* Crep., 1837a, 326, as name of a group of distomes; quotes Nitzsch.]
- echinocephalum* Rud., 1819a, 115, 418 (in *Falco milvus*) to (Echinost.) (contains *D. milvi* Rud., 1809a, 429).—Braun, 1893a, 874.—Dies., 1850a, 385 (syns. *D. milvi*; *Fasc. milvi*; *Plan. latiuscula* Gœze).—Duj., 1845a, 425.—Stoss., 1892, 173 to Echinost.
- echiuri* Greef, 1879a, 130 (in *Echiurus pallasi*).—Braun, 1893a, 869; 1893d, 468.
- elegans* (Rud., 1802) Rud., 1809a, 375-376; 1819a, 100.—Braun, 1901, 561, 564, 567; 1902b, 38-39, 40 (Vienna no. 362 from *Fringilla coelebs* = *pars* Urog. mac.; no. 363 from *F. montana* = *pars* *Plagiorchis* = *D. cirratum* Rud.), 41, 42, 45, 47, 48, 49 (to *Plagiorchis*) (syn. of *Urogonimus macrostomus*).—Cobbold 1860a, 12.—Crep., 1829, 59-63; 1837, 313, 316.—Dies., 1836, 240; 1850a, 349-350 (includes *D. erraticum* Rud.).—Duj., 1845a, 414-415 to (*Brachylaimus*).—Fil., 1855b, 8.—Mehlis, 1831, 179.—Mueh., 1896, 589.—Olfers, 1816, 44.—Schlotthauber, 1860, 129.—Sieb., 1835, 56.—Stoss., 1892, 153; 1892, 11 to (*Brachylaimus*); 1904, 2.
- elephantis* Dies., 1858, 354 (based on Jackson, 1847, 317; in *Elephas indicus*) (to *Cladocœlium*); 1858e, 354 (in *Elephas indicus*).—Cobbold, 1860a, 8-9 [see *Fasc. jacksoni* Cobbold]; 1879b, 394.—Fitz. 1876b, 513.—Stoss., 1892, 9 (to *Cladocœlium*).—Jackson, 1847, 317 [see *Fasc. jacksoni* Cobbold].
- ellipticum* Mol., 1858, 130 (in *Acipenser nasus*; *Patavii*); 1861, 216-217, pl. 3, figs. 1, 4.—Carus, 1884, 126.—Dies., 1850a, 351; 1858e, 351 (in *Ac. nasus*).—Stoss., 1886, 41, to (Echinost.).
- elongatum* Mehlis, 1831, 177 (in *Larus argentatus*, *L. marinus*, *L. ridibundus*).—Crep., 1837, 316; 1846, 139.—Dies., 1850a, 397.—Stoss., 1892, 181.—Also reported for *Chroocephalus ridibundus*.
- embryo* Olfers, 1816, 110, fig. 16 (in *Perca vulgaris*, *P. cernua*).—Cobbold, 1860a, 26; 1879b, 458.—Dies., 1850a, 365 (includes *D. longicollis* Crep.).—Kroyer, 1838-40a, 579 (in *Acerina cernua*).—Stoss., 1886, 48.
- [*endemica* Sons., 1884, 17-21 (not as specific name but refers to *Dist. ringeri* endemic in Japan and Formosa).]
- endemium* Bætz, 1883, 235 (sub. *D. hepatis*).—Braun, 1893b, 187; 1893, 349, 352; 1893f, 386, 425 (syn. of *D. japonicum* R. Bl.).—Corlette, 1897a, 146.—Dung-lison, 1893, 338.—Hoyle, 1890, 538.—Huber, 1896a, 577.—Ijima, 1886a, 47-59, pl. 7, figs. 1-9; 1887a, 596; 1888a, 213-215; 1889b, 137.—Jamieson, 1897b, 147 (syn. of *D. sinense*).—Katsurada, 1891c, 151-155.—Laspeyres, 1904a, 6.—Lockwood, 1901, 2 ed., 821.—Looss, 1907, Feb. 1, 141-147.—Mont., 1888a, 25, 36, 52, 58, 60.—Rail., 1890, 143.—Simon, 1897, 223.—Sons., 1889, 278, 279, 280, 282 (syn. *D. japonicum* Bl.) (in *Felis dom.*).—Stiles, 1904i, 35 (syn. of *Opisthorchis sinensis*).—Stoss., 1892, 23-24 (syns. *D. sinense*, *D. spatulatum* Leuck.).—Reported also for *Homo sapiens*, China, Giappone,

DISTOMA—Continued.

- Bengal, Tonkin, Corea, Formosa; *Felis domestica*).—Tyson, 1903, 3 ed., 1180 (syn. of *D. sinense*).—Ward, 1903, 870 (syn. of *Opisthorchis sinensis*).
- endemicum hepatis* St. Remy, 1883, 528–529, fig. 3.—La Clínica de Málaga, 1883, 309.—Cf. *hepatis endemicum*.
- endoboluum* Mont., 1891, 110, for *endolobum*.
- endolobium* Gurlt, 1845a, 288, 290 (for *endolobum*).
- endolobum* Duj., 1845a, 397 (in *grenouilles vertes et rousses et la salamandre*; Rennes).—Brand., 1892, 506.—Braun, 1889a, 355; 1892a, 598, 642, 700, 701, 715, 718, 719, 797, 806; 1893a, 818, 824, 860, 861, 865, 916; 1893b, 182.—Buetschli, 1872, 234–236, pl. 8.—Cobbold, 1860a, 17; 1879b, 454.—Dies, 1850a, 388–389; 1858d, 252 (larva is *Cerc. (Acanthocephala) armata* Sieb.); 1858e, 348, 349 (adult in *Salamandra maculosa*, Rhedoni; *Pelophylax esculentus*, Heidelberg; *Rana temporaria*; larva in *Planorbis corneus*, *Paludina impura*, *Lymnaeus stagnalis*); 1859c, 434 (*Cerc. armata*).—Engel, 1866a, 8.—Erc., 1855a; 1881e, 21, 82, 84; 1882a, 257, 318, 320.—Fil., 1857c, 32.—Florance, 1866a, 11.—Gamb., 1896a, 72.—Harz, 1881c, 4.—Juel, 1889, 15.—Kampmann, 1894b, 446–454, 457, 461, 462, pl. 20, figs. 19–23.—Kath., 1894a, 146.—Kerbert, 1881a, 572.—Kowal., 1894, 3.—Lander, 1904a, 16.—Linst., 18/3, 1 (young is *Cerc. armata*); 1887, 97–101, 102, pl. 2, figs. 1–2 (syn. *D. rastellus*); 1894b, 332–333 (larva in *Phryganea flavicornis*, *Limnophilus rhombicus*, *L. griseus*, *Anobolia nervosa*, *Ephemera vulgata*, *Chloëon dipterum*).—Looss, 1885b, 24; 1892, 66; 1893b, 815; 1894a, 2, 19, 26, 82, 83, 84–90, 94, 95, 122, 123, 124, 137, 140, 149, 150, 158, 159, 179, 181, 187, 188, 189, 190, 191, 202, 206, 207, 208, 214, 215, 216, 230, 231, 240, 245, 249, 259, 264, 270, pl. 2, figs. 27–29, pl. 7, figs. 153–156, pl. 8, figs. 157–162, pl. 9, figs. 176–186 (syns. *D. rastellus*; *D. retusum* Duj. of Ben.; *Fasc. ranæ*; (reported for *Bufo vulgaris*, *B. variabilis*, *B. calamita*, *Rana esculenta*, *R. temporaria*, *Triton cristatus*); 1896b, 95; 1899b, 589, type of *Opisthioglyphe*; 1905, 21 (*Fasc. ranæ*).—Mont., 1891, 110 (*endoboluum*); 1893, 28, 83.—Mueh., 1898, 28.—Olss., 1893, 11.—Pag., 1857, 19, 41, 52, pl. 5, fig. 1 (in green frogs).—Schwarze, 1885, 67.—Sons., 1893, 188 (in *Rana esc. L.*).—Staff., 1900, 404, 406; 1902, 724.—Ziegler, 1883, 557.—Also reported for: *Gammarus pulex*, *Limnophilus rhombicus*, *Triton alpestris*.
- enterarchos* deFil.—Par., 1896, 13, syn. of *D. crassicolle* Rud.
- epatico* Galli-Valerio, 1893a, 178, 181, pl. 2, figs. 3, 4.
- ercolani* Mont., 1893, 40, for *ercolanii*.
- ercolanii* Mont., 1893, 40, 42, 43, 83, 86, 95, 98, 102, 188, pl. 6, fig. 67.—Braun, 1901b, 13 (includes *D. signatum* Erc. [not Duj.], 15, 16.—Looss, 1899b, 567 (in all probability identical with *Telorchis linstowi*).—Luehe, 1899, 528, 529, 530.—Rizzo, 1902, 28.—Stoss., 1895, 223–224, to (*Dicrocoelium*); 1904, 1 (includes *D. signatum* Erc. [not Duj.], in *Tropidonotus viperinus*, 5–6 (to *Telorchis*).—Volz, 1899, 235, 237.—Reported also for *Tropidonotus natrix*.
- erinacei* (Bl., 1847) Braun, 1889, 343.
- erinaceum* Poir., 1886, 37–38, pl. 4, fig. 6 (in *Delphinus delphis*).—Braun, 1892a, 643; 1893a, 870.—Looss, 1899b, 590 (probably an *Astia*).—Mont., 1893, 83, 86, 105, 106, 107.—Stoss., 1892, 22, to (*Dicrocoelium*).
- erici* (Mueller, 1788) Zed., 1803a, 212.—Dies., 1850a, 363 (syn. of *D. hyalinum* Rud.).—Rud., 1809a, 389.
- erraticum* Rud., 1819a, 120 (in *Fringilla linaria*, *Motacilla alba*, *Parus cœruleus*, *P. major*, *P. palustris*, *P. pendulinus*).—Braun, 1902b, 38 (of Linst., 1894, 335, syn. of *Plagiorchis elegans* Rud.), 42.—Dies., 1850a, 350 (syn. of *D. elegans* Rud.), 361 (syn. of *D. macrostomum* Rud.).—Duj., 1845a, 443.—Erc., 1881e, 73; 1882a, 309.—Kowal., 1896d, 3 (253) (in *Picus major*; Dublany).—Linst., 1894b, 335–336 (in *Parus major*).—Luehe, 1899, 531 (probably a *Plagiorchis*).—Stoss., 1892, 183 (syn. of *D. macrost. Rud.*).
- esocis luci* Rud., 1809a, 438–439 (in *Esox lucius*), based on Rud., 1803, 29–30.
- euryostomum* Linst., 1877, 183–184 (in *Anas clangula*).—Stoss., 1892, 159, to (*Dicrocoelium*) (in *Bucephala clangula*).
- exasperatum* Rud., 1819a, 117, 421–422 (in *Sorex eremita*) to (*Echinost.*).—Braun, 1901b, 22; 1901, 341–344, pl. 19, figs. 6–7 (includes *D. exasperatum* Duj., 1845a; Dies, 1850a; *D. (Brachylaimus) exasperatum* Stoss., 1892; *D. (Brachylaimus) rubens* Duj., 1845a; *D. rubens* Dies., 1850a).—Cobbold, 1879b,

DISTOMA—Continued.

- 296.—Crep., 1837, 311.—Dies., 1850a, 391.—Duj., 1845a, 411.—Stoss., 1892, 15 (in *Crossopus fodiens*, *Sorex tetragonurus*) (includes *D. rubens*).
- excavatum* (Rud., 1803) Rud., 1809a, 399–400, 404 (in *Ardea ciconia*): 1819a, 109 (in *A. ciconia*, *A. nycticorax*), 402–403.—Dies., 1850a, 383 ([*nycticoracis*] syn. of *D. echinatum* Zed.).—Lamouroux, 1822a, 194.—Nord., 1840, 628 (to Holost.).—Rail., 1893a, 366 (syn. of *D. ech.*).—Ward, 1895, 341 (in *Canis familiaris*) (syn. of *D. ech.*).—See next entry.
- excavatum* (Rudolphi, 1803) Blainv., 1824a, 518–519 (a holostome).—Dies., 1850a, 310 (to Hemist.).—Duj., 1845a, 375.—Mehlis, 1831, 175.—Nathusius, 1837, 53.—See foregoing entry.
- excisum* Rud., 1819a, 112, 411–412, 685 (in *Scomber colias*, at Naples; *Scomber scomber*, at Arimini).—Bellingham, 1844, 425.—Ben., 1870, 37.—Braun., 1892a, 654, 682.—Bremser, 1824, 134, pl. 9, figs. 19–20.—Carus, 1884, 128.—Cobbold, 1860a, 25.—Cohn, 1902k, 54, to (*Lecithocladium*).—Crep., 1837, 326; 1839, 289.—Dies., 1850a, 375–376; 1858e, 342, 343; 1859c, 432.—Duj., 1845a, 436.—Harz, 1881c, 5.—Kroyer, 1838–40a, 236, in *Scomber scombrus*.—Looss, 1899b, 640 (to *Hemius*).—Luehe, 1901, 397, 398.—Mol., 1858, 290; 1859, 841; 1861, 211–212.—Mont., 1891, 497, 500, 502.—Olss., 1868, 51; 1876, 21.—Sons., 1891, 259 (in *Scomber scombrus*).—Stoss., 1883, 116; 1886, 15.—Wagener, 1860, 165, 166, 172–176, pl. 8, figs. 8–14.
- exiguum* Mueh., 1898, 17, 25, 89–90, fig. 11 (in *Circus rufus*).—Looss, 1899b, 564 (type of *Holometra* Looss).
- expansum* (? Creplin, 1842) Mont., 1892, 714 [speaks of *M. expansum* on same page], probably lapsus for *expansum* Crep., 1842.
- exspinosum* Hausmann, 1896a, 391; 1897b, 4, 6, 20, 22, pl. 1, figs. 4–5 (in *Barbus fluviatilis*).—Looss, 1899b, 598 (to *Asymphyllodora*).
- fabenii* Mol., 1859, 289 (in *Cantharus vulgaris*: *Batavii*); 1858, 289; 1861, 202–203.—Carus, 1884, 130.—Dies., 1859c, 428–429.—Sons., 1890, 142–143 (in *Cantharus lineatus* Mont.).—Stoss., 1886, 27.
- factum* Mont., 1893, 32, misprint for *fractum*.
- falcolacæ* Leidy, MS., in Stiles & Hass., 1894d, 250 (name found in bottle in Leidy collection: is probably *D. trapezium* Leidy).
- falconis chrysaëti* Rud., 1809a, 429 (= *D. felleum Falconis chrysaëti* Viborg).
- falconis milvi* Rud., 1809a, 429–430, for *F. milvi* Gmelin.
- falconis rufi* Rud., 1819a, 119 (in *Falco rufus*: Cat. Ent. Vien.).—Dies., 1850a, 346 (syn. of *D. lineola*).—Duj., 1845a, 442.—Stoss., 1892, 183 (syn. of *D. lin.*).
- fallax* Rud., 1819a, 117, 120 (in *Uranoscopus scaber*: Naples).—Carus, 1884, 126.—Cobbold, 1860a, 37, to *Echinost.*—Dies., 1850a, 392.—Duj., 1845a, 432.—Looss, 1899b, 576, 581, 582; 1901, 655, 658; 1902m, 789, 804, 805, 811, 822, type of *Anisogaster* 1901 [not 1863] and *Anisocladium*, 1902.—Stoss., 1886, 34; 1890, 41.—Wagener, 1860, 170.
- farionis* (Mueller, 1788) Bl., 1891, 481–483, fig. 38 (includes *F. truttæ* Frœlich, *D. laureatum* Zed.).—Braun, 1893b, 179, 184.—Hausmann, 1897b, 4, 6, 17, 20, 22, 35 (in *Thymallus vulgaris*).
- fasciatum* Rud., 1819a, 97, 373–374, 595 (in *Labrus tinca*, *L. merops*, *Perca marina*; Naples).—Barbagallo & Drago, 1903, 410 to (*Dicrocoelium*) (in *Crenilabrus cœruleus*: Catania; *Serranus scriba*).—Braun, 1891d, 421; 1892a, 720, 765; 1893a, 910; 1893b, 184 (in *Labrus merula*).—Carus, 1884, 130.—Cobbold, 1860a, 23.—Dies., 1850a, 344 (includes *D. labri* Rud., 1819a, 122).—Duj., 1845a, 456.—Lint., 1900, 291.—Looss, 1899b, 571 (this form as described by Stoss., 1885, belongs to *Creadiinae*, possibly to *Creadium*); 1901, 399, 401.—Mont., 1888a, 66; 1893, 192, pl. 1, fig. 15.—Odhn., 1901, 484, 485, 486, 487, 488, 490, 491, 493, 496, 497; 1902, 160.—Olss., 1868, 32.—Sons., 1890, 141 (in *Serranus scriba* L.); 1891, 257.—Stoss., 1885, 160; 1886, 32; 1892, 64; 1898, 46; 1902, 578.—Will.-Suhm, 1870, 8; 1871, 182, pl. 11, fig. 7.—Also reported for *Anguilla vulgaris*, *Crenilabrus melops*, *C. tinca*, *Ctenolabrus rupestris*, *Labrus mixtus*.
- felineum* Rivolta, 1884, 20–29, 1 pl. (in cat and dog: Italy).—Askanazy, 1900b, 491 (cats and dogs: Italy), 494 (*felinum*); 1900c, 72–80; 1901, 72, 73, 74, 75, 76, 77, 78, 79, 80 (cases in man); 1906, 127–131 (in *Idus idus*, *Leuciscus rutilus*).—Braun, 1893, 349, 351, 352, 353; 1893f, 386, 387, 388, 390, 391, 392, 422, 423, 424, 425 (includes *D. conus* Gurlt, Sons., *D. lanceolatum* Crep. p.p., Sieb., van

DISTOMA—Continued.

- Tright: in dogs and cats), 426, fig. 3 (extensive account of early synonymy); 1894, 129; 1894i, 602, 605, 606; 1895b, 148–151, figs. 66–68; 1900g, 250; 1901e, 314, 315, 338; 1902b, 5.—Kholodk., 1897, v. 27 (1), 185–186 (in man).—Huber, 1896a, 576 (syn. of *D. sibiricum*).—de Jong, 1887a, 57ff (in dog; Holland); 1886–87; 1887b, 223, 224; 1896a, 1, 2, 3, 4, 9, 10, 11, fig. 4.—Kamensky, 1900a, 1–23 (syn. of *Opisthorchis tenuicollis* Rud., Mueh.); 1900b, 1–23; 1901a, 323–324.—Kholodk., 1898, 26, 29, pl. 9, figs. 10–12; 1899a, 152.—Kowal., 1898g, 74; 1898h, 144 (41).—Laspeyres, 1904a, 513 (felinum).—Linst., 1903, 279.—Looss, 1896b, 58, 59; 1899b, 530, 674, 675, 676; 1905, 89 (to *Opisthorchis*).—Moniez, 1896, 86, 123, 136–141, fig. 26.—Mueh., 1898, 15, 16, 21 (syn. of *D. tenuicollis*), 24.—Rail., 1893a, 361.—Ratz, 1898, 67–69, fig. 1 (felinum); 1900, 250; 1900, 141–142; 1900, 532.—Rindfleisch, 1904, March, 346 (in man); 1904, 8.—Roth, 1904, 93–94 (in man, infection from *Leuciscus rutilus*).—Schneidemuehl, 1896, 302.—Shaw, 1901, 1027.—Simon, 1897, 223.—Sons., 1889, 276, 280; 1889, 281 (syn. of *D. conus* Crep.); 1897, 254, 255, 256–257 (in *Canis* fam.; Pisa); 1897, Apr., 221.—Stiles, 1894n, 358–360.—Stiles & Hass., 1894c, 426–427, figs. 5–8; 1898a, 85 (type of *Opisthorchis*).—Tyson, 1903, 3 ed., 1181 (in cats and man).—Ward, 1895, 152; 1895, 238 (man, cat, dog; includes *D. lanceolatum* of cats and dogs), 243–244 (includes as syns. *D. conus* Gurlt nec Crep.; *D. lanceolatum* Sieb., 1836; *D. truncatum* Rud. pars.); cat, dog, and glutton; Europe; man; Siberia), 328 (in *Homo*; biliary ducts), 341 (in *Canis familiaris*; biliary ducts); 1895, (3), Mar., 152–158, 1 fig.; 1895, 8 pp.; 1895, 304–309; 1901, 180 (of Ward syn. of *Opisthorchis pseudofelineus*).—Weichselbaum, 1898, 315.—Also reported for *Gulo borealis*.
- felinum* of Ward, 1895, 152–158, 1 fig.; 1895 (nec Riv.), 239, fig. 1, 240, fig. 2, 242, fig. 3 (= *Opisthorchis pseudofelineus*); 1896, 5 Nov., 709; 1901, 180.
- felinum (sibiricum)* Askanazy, 1900b, 491–502, for *felinum*, cases in man; 1900c, 711, 712.
- felinum* (see *D. felineum*; misprint in Ratz, 1898, 67).
- felleum falconis chrysaeti* Viborg, 1795, 243 (renamed *D. Falconis chrysaeti* by Rud.).—Dies., 1850a, 376 (syn. of *D. crassiusculum*).
- fellis* Olss., 1868, 44–46, pl. 5, fig. 94 (in *Anarhichas lupus*).—Braun, 1893a, 875.—Jacoby, 1899c; 1900, 1, 12–16, 20, figs. 8–12.—Lint., 1900, 291.—Luehe, 1900, 504.—Odhn., 1905, 307, 309, 310.—Stoss., 1886, 24 (in *Anarhichas lupus*).
- ferocis* Mont., 1888a, 14, apparently misprint for *ferox*.
- ferox* (Rud., 1795) Zed., 1803a, 221.—Baird, 1853a, 56, includes *Echinorhynchus ardeæ nigre* Braun.—Ben., 1868, 295, 296–299, pl. 1, figs. 1–5.—Braun, 1892a, 568, 583, 584, 721; 1893a, 877, 881.—Bremser, 1824, pl. 10, figs. 6–11.—Crep., 1837, 311, 312, 316, 326.—Dies., 1850a, 387–388 (syns.: *Plan.*, *D. ardeæ* Zed.; *D. ardeæ stellaris* Rud.; *Echinorhynchus ardeæ nigre* Braun; *Fasc. ardeæ* Gmelin).—Duj., 1845a, 429–430.—Gamb., 1896a, 63.—Giebel, 1857, 265.—Kowal., 1896d, 253 (3) (in *Ciconia alba*; Dublany).—Leuck., 1886d, 11; 1879, 14.—Linst., 1873, 106 (in *Ciconia alba*).—Looss, 1892a, 14.—Mayer, 1841a, 4.—Mol., 1858, 130; 1861, 219.—Mont., 1888, 14.—Nathusius, 1837, 53.—Nord., 1832a, 90.—Olfers, 1816, 47.—Olss., 1876, 22.—Rud., 1803, 90; 1809a, 426–427, to (*Echinost.*), 433; 1814a, 102; 1819a, 116–117, 120, 419–420.—Villot, 1875, 473.—Also reported for *Ardea ciconia*, *A. nigra*, *A. stellaris*, *Ciconia nigra*.
- ferruginosum* Linst., 1877, 184–185, pl. 14, figs. 25–27 (in *Barbus fluviatilis*).—Braun, 1892a, 587, 729, 766.—Hausmann, 1897b, 30.—Looss, 1894a, 24, 25, 26, 31, 32, 123 (syn. of *D. perlatum*).—Stoss., 1886, 48.
- filicolle* (Rud., 1819a) Ben., 1858a, 1861a, 104–107, 111, 187, 189, 195, 199, 200, 201, pl. 10, figs. 1–10 (includes *D. okenii*); 1870c, 137.—Braun, 1892a, 698–727.—Carus, 1884, 128.—Cobbold, 1860a, 31 (in *Brama raii*) to *Köllikeria* as type.—Leuck., 1879, 137; 1886d, 106.—Mont., 1888a, 9, 18, 52, 62, 93, 104; 1893, 150.—Sons., 1890, 143 (of Wagener).—Stoss., 1886, 17.
- filiferum* Sars, 1885, 222, pl. 38, figs. 19–21 (in *Nematoscelis megalops* S., *Thysanocœssa gregaria* S.; South Atlantic Ocean).—Braun, 1893a, 836, 837, 853.—Linst., 1888, 17.—Mont., 1893, 40, 42, 43, pl. 5, fig. 61.
- filiforme* Rud., 1819a, 112, 411, 772 (in *Cepola tænia* at Arimini; *Cepola rube-scens*).—Braun, 1883a, 41; 1892a, 672.—Carus, 1884, 131.—Cobbold, 1860a, 28.—Dies., 1850a, 375.—Duj., 1845a, 460–461.—Stoss., 1886, 48.—Will.-Suhm, 1870, 8; 1871, 182.

DISTOMA—Continued.

- flum* Duj., 1845a, 418 (in moineaux at Rennes). to (*Brachylaimus*).—Cobbold, 1860a, 15 (in *Fringilla* dom.).—Dies., 1850a, 376.—Hausmann, 1897b, 28.—Stoss., 1892, 152.
- fimbriatum* Busch, 1851, 99, pl. 15, fig. 12 (in *Sagitta*).
- flagellatum* Moniez, 1891, 27 (in *Gymnotus electricus*); 1896, 144.
- flavescens* Pag., 1857, 34–35, pl. 3, fig. 14 (in *Bulimus radiatus*).—Braun, 1892a, 642.—Dies., 1858d, 278 (to *Cercariæum*).
- flavescens* Ben., 1870, 47, pl. 5, fig. 4, (in *Gobius jozo*; *G. minutus*).—Stoss., 1886, 21.
- flavocinctum* Linst., 1879, 183–185 (in *Anguis fragilis*).—Stoss., 1895, 230; 1897, 9 (= *D. crassicolle*); 1898, 32.
- flexum* Lint., 1892, 98–99, pl. 6, figs. 36–44 (in *Oedemia americana*).
- flexuosum* Rud., 1808a, 346; 1809a, 50, 389–391 (in *Talpa europæa*): 1819a, 105.—Bellingham, 1844a, 424.—Braun, 1891d, 421; 1901a, 33.—Cobbold, 1860a, 7; 1879b, 296.—Dies., 1850a, 360; 1858e, 341 (in *Talpa europæa*).—Duj., 1845a, 398–399.—Hausmann, 1897b, 28.—Looss, 1899b, 562, type of *Omphalometra*.—Mueh., 1896, 244–248, figs. 1–8; 1896, 588; 1898, 16, 28.—Olfers, 1816, 44.—Stoss., 1892, 26 (in *Talpa europæa*; Greifswald, Copenhagen, Rennes).
- fæcundum* Lint., 1900, 269, 282, 289–290, pl. 36, figs. 27–35, pl. 37, figs. 36–37 (in *Lopholatilus chamaeleonticeps*); 1901, 415, 419, 432, 472.
- foliaceum* Mol., 1859, 288 (in *Gobius paganellus*; *Batavii*); 1861, 199.—Carus, 1884, 131.—Dies., 1859c, 428.—Stoss., 1886, 48.
- foliatum* Lint., 1898, 532–534, pl. 49, figs. 3–5, pl. 51, figs. 1–3, pl. 51, figs. 1–4 (in *Mola mola*); 1900, 282; 1901, 415, 422, 466; Looss, 1902m, 644, to *Orophocotyle*.
- foliiforme* Crep., 1846, 149 (in *Squalus griseus*); 1837, 317.
- folium* Olfers, 1816, 45, fig. 15 (t. h. *Esox lucius*).—Bell, 1887a, 117.—Braun, 1892, 44; 1892a, 642, 663, 674, 697, 710, 716, 720, 723, 737, 746, 783, 785; 1892g, 461–463; 1893a, 876; 1893d, 467; 1899, 2; 1899g, 490, 492, type of *Phyllodist.*; 1899b, 721; 1901b, 9, 10, 12.—Cobbold, 1860a, 23.—Cohn, 1896, 240.—Darr, 1902, 688.—Dies., 1850a, 343 (in *Esox lucius*; Berlin); 1858e, 335.—Duj., 1845a, 464.—Fil., 1855b, 25.—Hausmann, 1897b, 15.—Kroyer, 1846–53a, 253.—Looss, 1893b, 813, 814, 815; 1894a, 2, 18–24. *D. duplicatum* [*Rhopalocerca tardigrada*], viewed as young form, 28, 29, 31, 58, 62, 63, 64, 110, 125, 136, 137, 138, 142, 159, 161, 167, 174, 179, 181, 183, 185, 186, 194, 197, 200, 204, 206, 211, 215, 217, 227, 230, 269, 270, 275, pl. 1, figs. 19–22, pl. 4, figs. 75–80 (reported for *Acerina cernua*; *Cottus gobio*; *Salmo umbla*; *Thymallus vulgaris*; *Trutta variabilis*); 1899b, 605, type of *Spathidium*: 1902m, 476, 477.—Mont., 1888a, 7, 55; 1893, 83, 102, 107.—Mueh., 1898, 11, 15, 28.—Odhm., 1902, 64, 65.—Rossbach, 1906, 377, 388.—Rud., 1819a, 96–97, 371–372, 588.—Spengel, 1892.—Ssinitzin, 1901, v. 24, 25 Nov., 689–694 (in *Dreissenia polymorpha*); 1902, 359–360; 1904, 768, figs. d, e.—Staff., 1902, 481, to (*Spathidium*), in *Ameiurus nebulosus*.—Stoss., 1886, 48.—Wagener, 1855, 1857, 26, 27.—Will.-Suhm, 1873.—Zschokke, 1884.
- formosum* Sons., 1890, 134–136 (in *Grus cinerea* Bechst.); 1891, 2 Mch., 291.—Braun, 1892a, 698; 1901, 944; 1902b, 21, 22.—Mont., 1893, 82, 148; 1896, 166.—Ofenheim, 1900, 160.—Stoss., 1892, 143 (to *Polyorchis*).
- fractum* Rud., 1819a, 107, 397 (in *Sparus salpa*; Naples).—Braun, 1893a, 910.—Carus, 1884, 124.—Cobbold, 1860a, 28.—Dies., 1850a, 377–378.—Duj., 1845a, 458.—Jacoby, 1900, 4.—Looss, 1894a, 170, 204, 219.—Luehe, 1900, 487.—Mont., 1892, Oct. 7, 174, 175; 1893, 13, 23, 24, 32 (factum), 33, 40, 41, 42, 43, 61, 79, 82, 83, 85, 87, 88, 91, 94, 96, 98, 102, 105, 106, 107, 114, 120, 141, 146, 167–172, 175, 186, pl. 1, fig. 9, pl. 5, fig. 62, pl. 6, figs. 81–86, pl. 7, figs. 110–111, pl. 8, figs. 112, 114.—Nord., 1832a, 35.—Odhm., 1905, 328.—Sons., 1890, 139–140 (in *Box salpa* Cuv.); 1891, 262.—Stoss., 1886, 49, to (*Podocotyle*); 1887, 184; 1892, 65.
- fragile* Lint., 1900, 269, 282, 295, pl. 39, figs. 68–70 (in *Mola mola*); 1901, 415, 420, 466.—Type of *Stenocollum* 1904.
- fraternum* Looss, 1894d, 42–48, pl. 2, figs. 13–15 (in *Pelecanus onocrotalus*); 1895a, 1896b, 60–63, 101, 154, 156, pl. 4, figs. 36, 37 (in *pelican*, Alexandria); 1899b, 535, 550, 556, to *Cœnogonimus*: 1902m, 804, 805, 886, 887.—Braun, 1901e, 334, 336, 338.—Jacoby, 1900, 23.—Jægers., 1898, 9, 12.—Luehe, 1899, 539, to *Cotylogonimus* (*Cotylogonimus*).—Moniez, 1896, 143–144.—Mueh., 1898, 81, 82 (considers *D. concavum* a *Mesogonimus* and more or less related to *fraternum* and *heterophyes*).—Sons., 1896, 314.—Stoss., 1898, 42.

DISTOMA—Continued.

- fratichii* Kowal., 1894, 3, host not given (to Echinost.); 1895, 353–355, pl. 8, figs. 4–8, 12 b; 1895, 372–390, pl. 8, figs. 1–6.
- fuligulæ ferinæ* Dies., 1858e, 355 (in *Anas ferina*; Ireland) based on Bellingham, 1844, v. 13, 430.—Stoss., 1892, 167 (to Echinost. echinatum).
- fulvum* Rud., 1819a, 98, 374–375 (in *Gadus molva* at Naples; *G. mediterraneus*).—Bellingham, 1844a, 423.—Carus, 1884, 131.—Cobbold, 1858b, 157, pl. 31, figs. 6–8 (in *Moletta quinquecirrata*) (includes *D. simplex* Rud.; *Fasc. bramæ* Mueller); 1860a, 23.—Dies., 1850a, 345 (in *Lota molva*; Naples); 1858e, 335 (in *Raja batis*).—Duj., 1845a, 466.—Kroyer, 1843–45a, 166 (in *Lota molva*).—Linst., 1903, 354.—Stoss., 1886, 49.—Also reported for *Gadus mustela* Linn.; *Molva vulgaris*; *Motella mustela*.
- furcatus* Bremser in Rudolphi, 1819a, 107, 396–397, 683–684 (in *Mullus surmuletus*, *M. rubescens* at Arimini; *Gadus molva* at Naples); 1824, 133.—Braun, 1892a, 576, 584; 1893a, 910.—Carus, 1884, 124.—Cobbold, 1860a, 29.—Crep., 1837, 310.—Dies., 1850a, 378 (in *Mullus barbatus*; *M. rubescens*; Arimini; *Lota molva*, Naples; *Coryphæna hippurus*, Brazil).—Duj., 1845a, 402.—Eysenhardt, 1829, 145.—Hausmann, 1897b, 35.—Kroyer, 1838–40a, 581; 1843–45a, 166 (in *Mullus surmuletus*; *Lota molva*).—Looss, 1902m, 771, 772 (undoubtedly represents a new genus).—Luehe, 1900, 487, 488, 490, 491, 492.—Mont., 1888a, 12; 1893, 192, pl. 1, fig. 18.—Odhn., 1905, 325, 326.—Stiles & Hass., 1898a, 92.—Stoss., 1883, 116, 1886, 16.—Also reported for *Box salpa*; *Molva vulgaris*.
- furcigerum* Olss., 1868, 26, pl. 4, fig. 72 (in *Pleuronectes limanda*, *P. limandoides*).—Braun, 1892a, 643, 728, 752; 1893a, 910.—Levin., 1881a, 12, 61–64, 67, 76, 77, pl. 2, figs. 5–6 (in *Cottus scorpius*, at Egedesminde; *P. limanda*; *P. limandoides*).—Linst., 1890f, 179.—Mont., 1893, 61, 95, 105, 193.—Odhn., 1905, 302, 305 (type of *Steringophorus*).—Staff., 1904 (type of *Leioderma* n. g., nec Suhm, 1873).—Stoss., 1886, 28 (to *Dicrocoelium*).
- [*fusca* Sluiter, 1900, 7 (a tunicate).]
- fuscatum* Rud., 1819a, 101, 384–385 (in *Tetrao coturnix*; Ancona).—Braun, 1901, 561, 564; 1901, 941; 1902b, 114, 115 (to Harmost.).—Cobbold, 1860a, 11; 1879b, 440.—Dies., 1850a, 353.—Duj., 1845a, 445.—Stoss., 1892, 182; 1892, 40.
- fuscescens* Rud., 1819a, 113, 413 (in *Sparus dentex*; Arimini).—Carus, 1884, 130.—Dies., 1850a, 377 (in *Dentex vulgaris*; Arimini).—Luehe, 1900, 490.—Mol., 1859, 833, 838–840, 845, pl. 1, fig. 1 (in *Dentex vulgaris*; Padua).—Mont., 1893, 40, 41, 42, 43, 82, 83, 95, 102, 177–179, pl. 5, fig. 63.—Stoss., 1885, 159; 1886, 27; 1886, 59 (to *Dicrocoelium*); 1898, 45 (in *Dentex vulgaris*; Trieste).—Also reported for *Caranx trachurus*.
- fusum* (Bosc, 1802) Poir., 1885, 6, 12–13, pl. 23, fig. 7.—Braun, 1893a, 872, 873.—Buttel-Reepen, 1902, 167, pl. 6, fig. 17.—Reported for *Doras* sp.
- fusiforme* Zed., 1800a, 163 (in *Upupa* ep.), 171–173, *Fasc. upupæ* Schrank, 1790, renamed; 1803a, 210.—Braun, 1901, 561.—Dies., 1850a, 351 (syn. of *D. involutum*).—Rud., 1809a, 377.
- gadi* Dies., 1855, 64, based on Bellingham, 1844a, 428, t. h. *Gadus æglefinus*; Ireland.
- gadi æglefini* Dies., 1858e, 341, based on Bellingham, 1844, 428 (renamed *D. anonymum* Dies.).
- galactosomum* Leidy, 1888i, 166–167 (in *Labrax lineatus*; U. S. A.); 1889, 611; 1904a, 216–217.—Braun, 1893a, 872; 1900h, 43.—MacCallum, 1899, 704, 707.
- gammari* Rentsch, 1860, 18, 35–50, pl. 12, figs. 7–12, 15–16 (in *Flohkrebs*, *Gammarus ornatus*).
- gammari* Linst., 1877, 186, n. sp.; 1878a, 315 (in *Gammarus pulex*).
- gammari ornati* Rentsch, 1860, in explanation of fig. 2, pl. 12 (*D. gammari* Rentsch, 1860, renamed).
- gastrocolum* Leidy, 1891a, 414–415 (in *Trichiurus lepturus*; U. S. A.); 1904a, 235–236.—Stiles & Hass., 1894, 414.
- gelatinosum* Rud., 1819a, 102, 386–387 (in *Testudo mydas*; Arimini).—Braun, 1899b, 715, 716–717; 1901b, 16, 18, 19, 29–34, figs. 6, 12, 19; 1902b, 26.—Carus, 1884, 129.—Cobbold, 1860a, 19.—Dies., 1850a, 356.—Duj., 1845a, 451.—Looss, 1899b, 570, 579, 580; 1901l, 563, 564, 565; 1902m, 445 (to *Rhytidodes*), 446, 451, 452, 454, 455, 456, 457.—Mont., 1888a, 38; 1892, 715; 1896, 165; 1903a, 86, 102.—Par., 1846.—Sons., 1890, 4 May; 1893, 5 Feb.; 1893, 183, 184

DISTOMA—Continued.

- (in *Chelonia caretta* L.).—Stoss., 1895, 37; 1895, 226–227; 1898, 43; 1904, 3.—Also reported for *Chelone mydas*, *Emys lutaria*, *Halichelys atra*, *Podocnemis expansa*, *Thalassochelys caretta* L., *T. corticata*.
- gelatinosum* Rud. of Poir., 1886, 33–34, pl. 3, fig. 6 (nec Rud.) (in *Cistudo lutaria*).—Braun, 1899b, 716 (syn. of *D. poirieri* Stoss.); 1901, 13, 19.—Looss, 1899b, 567 (possibly identical with *Telorchis linstowi*).—Luehe, 1899, 528.—Stoss., 1904, 3 (syn. of *D. poirieri* Sons., 1893, *Telorchis poirieri* Stoss.).
- geminum* Looss. 1896b, 50–52, 54, 58, 59, pl. 4, figs. 25–27 (in *Milvus parasiticus*; Cairo); 1899b, 675 (to *Opistharchis*).
- geniculatum* Dies., 1850a, 373–374 (in *Physophora tetrasticha*; Naples) (*D. physophoræ* Fil., renamed).—Cobbold, 1860a, 30.—Mont., 1888a, 77; 1888, 195, 196; 1893, 124.—Moul., 1856a, 217.
- genu* Rud., 1819a, 107–108, 397–398 (in *Labrus luscus*; Naples).—Braun, 1893a, 873.—Carus, 1884, 131.—Cobbold, 1860a, 27.—Dies., 1850a, 368–369.—Duj., 1845a, 462.—Looss, 1901d, 399.—Nord., 1832a, 36.—Odhn., 1901, 484, 487, 490, 496.—Stoss., 1886, 49.
- giardi* Stoss., 1898, 50–51, for *giardii*.
- giardii* Stoss., 1889, 25(3), pl. 13, fig. 56 (in *Naucrates ductor*; Trieste); 1898, 50–51 (*giardi*).—Braun, 1892a, 583, 673; 1893a, 910.—Buttel-Reepen, 1902, 202.—Mont., 1893, 29, 43.
- gibbosum* (Rud., 1802) Rud., 1809a, 399, pl. 6, fig. 8 (in *Esox belones*); 1819a, 107, 395–396.—Bellingham, 1844a, 424.—Carus, 1884, 124.—Cobbold, 1860a, 28.—Crep., 1837, 326.—Dies., 1850a, 378; 1858e, 343 in *Gadus aeglefinus*, Ireland; 1859c, 433.—Duj., 1845a, 402.—Harz, 1881c, 5, 11.—Kroyer, 1846–1853a, 273 (in *Belone rostrata* Fabricius).—Luehe, 1900, 487, 492; 1901, 480.—Mol., 1858, 290 (in *Belone acus*; Patavii); 1861, 213.—Odhn., 1905, 356, 357 (to *Lecithaster*).—Olfers, 1816, 46.—Stiles, 1901, 193.—Stiles & Hass., 1898a, 92.—Stoss., 1886, 49.—Also reported for *Colymbus cristatus*.
- giganteum* Dies., 1858e, 331–332 (*gigantica*, 1855, renamed).—Bassi, 1875b, 508.—Braun, 1892a, 650 (*gigantea*), 568, 674; 1893d, 466; 1903a, 875, 910.—Leuck., 1863, 530.—Stiles, 1898a, 49.—Stoss., 1892, 9 (to *Cladocœlium*).
- gigas* Nardo, 1827, 68–69 (in *Proctostegus proctostegus*, teste Braun); 1833, 523; 1874–1875 or (1876), 265–266.—R. Bl., 1888a, 543; 1891, 479–481, fig. 37.—Braun, 1892a, 632; 1893a, 873; 1893b, 184 (in *Proct. prototypus*).—Buttel-Reepen, 1902, 167, 168, 169, 171, 172, pl. 6, figs. 10, 10a.—Carus, 1884, 126.—Cobbold, 1858, 167; 1860a, 28; 1879b, 460.—Crep., 1837, 310.—Darr, 1902, 664, 665, 666, 669, 671, 697.—Dies., 1850a, 373.—Hoyle, 1890, 540.—Luehe, 1901, 483, “*D. gigas*” (from *Luvarus imperialis*), to *Accacœlium raynerianum*, 485.—Mont., 1889, 322; 1891, 500, 520; 1893, reprint, 7–9.—Par., 1902, 6 (in *L. im.*; Portoferraio).—Poir., 1885, 6.—Setti, 1894, (19 pp.), pl. 28; 1894, 17 pp., pl. 28, 6 figs.; 1895, 316; 1895, 306; 1895, Feb. 28, 270; 1895, 367.—Stoss., 1886, 50.—Also reported for *Ansonia cuvieri*.
- glabrum* Crep., 1846, 148 (in *Salamandra maculosa*).—Dies., 1850a, 398.—Stoss., 1889, 70.
- glandulosum* Looss, 1896b, 64–68, 69, 71, 72, 76, pl. 5, figs. 41–44 (in *Taphosus nudiventris*; Ghizeh); 1898, 453, 454, 455, 456, 457, 458, figs. 1, v; 1899b, 547, 716, 717 to *Lecithodendrium*.—Stiles, 1901, 200.
- glauca* Bergh, 1884, 18, pl. 10, figs. 5–17 (in *Glaucus atlanticus*, etc., teste Braun).—Linst., 1888, 17.
- globicaudatum* Crep., 1849a, 64.
- globiferum* Lamarck, 1816, 182 for *D. globiporum*.—Nord., 1840, 618 (syn. of *Fasc. globifera*).
- globiparum* Ehrenb., 1837b, 199, for *globiporum*.
- globiporum* (Rud., 1802), Rud., 1809a, 364–367 (includes *Fasc. bramæ* Mueller; *F. lanceolata* (bramæ) Schrank, 1790; *F. tinæa* Modeer, 1790; *F. longicollis* (carponis) Frœlich, 1791; *D. cyprinaceum* Zed., 1800; *D. carinatum* Zed.), 410, 414, 441; 1819a, 96.—Ben., 1858a, 1861a, 100, 191, 197, 203.—Braun, 1883a, 52; 1892a, 635, 695, 699, 711, 746, 747, 756, 779, 780, 783, 785, 788, 790; 1893a, 865, 879, 883.—Burm., 1835b, 187–194, pl. 2, figs. 1–6.—Cobbold, 1860a, 21.—Condorelli-Francaviglia, 1898, 2, 4, 5–7.—Crep., 1837, 310, 313, 322, 323, 324, 327, 328, 329; 1846, 152, 153, 154.—Dies., 1850a, 341 (includes *Fasc. bramæ* Mueller, *F. lanceolata* Schrank, *F. longicollis* Frœlich, *F. globipora*

DISTOMA—Continued.

- Rud., *D. cyprinaceum* Zed., *D. carinatum* Zed., *D. bramæ* Zed.); 1858e, 334 (larva in *Lymnæus stagnalis*).—Duj., 1845a, 417.—Ehrenb., 1837b, 199 (globiparum); 1837, 151–180; 1838b, 15.—Gamb., 1896a, 72.—Hausmann, 1897b, 4, 6, 8, 10, 17, 18, 20, 21, 22, 39–40 (in *Scardinius erythrophthalmus*, *Chondrostoma nasus*, *Barbus fluviatilis*, *Squalius cephalus*, *S. leuciscus*, *Cobitis barbatula*, *Abramis brama*, *A. blicca*, *A. vimba*, *Alburnus lucidus*, *Acerina cernua*, *Cyprinus carpio*, *Esox lucius*, *Leuciscus rutilus*, *L. meidingeri*, *L. scardapha*, *Phoxinus lævis*, *Perca fluviatilis*, *Tinca vulgaris*, *Thymallus vulgaris*).—Kampmann, 1894b, 446.—Kroyer, 1838–40a, 20; 1846–53a, 367, 387, 434; 1852–1853a, 1222, 1223, 1224, 1225 (in *Abramis brama*, *A. blicca*, *A. vimba*, *Aspius alburnus*, *Barbus fluviatilis*, *Leuciscus erythrophthalmus*, *L. rutilus*, *Perca fluviatilis*, *Phoxinus aphyæ*, *Tinca vulgaris*).—Lamareck, 1816, 182 (globiferum).—Lamouroux, 1824, 563 [Distome à pores globuleux].—Leuck., 1863a, 500, 501, 503, 504.—Linst., 1882, 19, fig. 24; 1885, 251.—Lint., 1901, 415 (in *Pseudopleuronectes americanus*), 420, 486, fig. 347; 1905, 328, 334, 356, 378, 393, figs. 159, 173, 198, 199 (in *Fundulus majalis*, *Leiostomus xanthurus*, *Orthopristis chrysopterus*).—Looss, 1885b, 22, 23, 24, pl. 23, fig. 18; 1894a, 41 (includes Fasc. bramæ Mueller; *F. longicollis* Frølich; *D. cyprinaceum* Zed., 1800; Fasc. globipora Rud., 1802), 2, 24, 41–48, 49 (of Olss., syn. of *D. isoporum* Looss), 50, 52, 53, 54, 58, 98, 123, 124, 136, 137, 141, 150, 151, 157, 159, 161, 162, 179, 191, 192, 195, 197, 214, 215, 216, 231, 239, 242, 243, 249, 256, pl. 1, figs. 11–14; pl. 5, figs. 95–101 (in *Abramis brama*, *A. blicca*, *A. vimba*, *Alburnus lucidus*, *Barbus fluviatilis*, *Chondrostoma nasus*, *Cyprinus carpio*, *Esox lucius*, *Leuciscus erythrophthalmus*, *L. jesus*, *L. rutilus*, *Perca fluviatilis*, *Phoxinus lævis*, *Squalius cephalus*, *Thymallus vulgaris*); 1896b, 208; 1899b, 646, 647, 648; 1902m, 757 (and Fasc. bramæ), 758, 760, 762, 764, 769.—Mol., 1858, 129; 1861, 199.—Mont., 1888a, 69, 72; 1892, Oct. 7, 187.—Moul., 1856a, 48 (embryo).—Mueh., 1898, 24, 28.—Nord.; 1832a, 88; 1840, 616, 618 (syn. of Fasc. globifera).—Olfers, 1816, 45.—Olss., 1876, 16; 1893, 11.—Par., 1896, 2, to (*Dicrocoelium*).—Poir., 1885, 1, 101.—Schauinsland, 1882, 496, 497.—Sieb., 1836, 233, 236, 237, 238, 239; 1836, v. 1, 218, pl. 6; 1838, 301.—Sramek, 1901, 95 (in *Abramis vimba*, C. V., *A. brama*), 96 (in *Squalius dobula* Heck.), 107–108 in *Squalius lepusculus* Heck.) (syn. Fasc. bramæ Mueller).—Stiles, 1901, 168, 194.—Stiles & Hass., 1898a, 95 (type of *Sphærostoma*).—Stoss., 1883, 116; 1886, 29; 1902, 582.—Wagener, 1857, 26, 44, pl. 23, fig. 1 (in *Lymnæus stagnalis*); 1860, 170; —, v. 9, 88, 89, pl. 1, fig. 5.—Also reported for *Abramis alburnus*, *Anguilla chrysypa*, *A. vulgaris*, *Blicca björkna*, *Cobitis fossilis*, *Cyprinus balerus*, *C. barbus*, *C. blicca*, *C. brama*, *C. alburnus*, *C. dobula*, *C. erythrophthalmus*, *C. phoxinus*, *C. nasus*, *C. rutilus*, *C. tinca*, *C. vimba*, *Idus melanotus*, *Leuciscus phoxinus*, *Limnæa ovata*, *Physa fontinalis*, *Planorbis marginatus*, *Succinea pfeifferi*, *S. putris*.
- globiporum tinca* Rud. of Dies., 1850a, 395 (syn. of *D. perlatum* Nord.).
- globocaudatum* Crep., 1825, 49–50 (in *Corvus cornix*); 1849a, 64.—Braun, 1902b, 44 (not Linst., 1883).—Cobbold, 1860a, 13.—Dies., 1850a, 351; 1858e, 337 (in *Corvus glandarius*).—Duj., 1845a, 413–414.—Fil., 1855b, 8.—Linst., 1878, 99; 1883, 307–308; 1886, 31.—Stoss., 1892, 153 (syn. of *D. cirratum* Rud.).
- globosum* Ben., 1858a, 1861a, 193 (refers to Sieb.).—Braun, 1901c, 311 (as a name of Dies. for *D. orbiculare*), 312.—Jackson, 1888, 647.
- globulus* Rud., 1814a, 104 (in *Anas fuligula*); 1819a, 109, Greifswald, 401–402.—Bellingham, 1844a, 425.—Braun, 1893a, 879; 1901, 561, 564; 1902b, 19, 152 (includes *D. gl.* Braun, 1901, 564; Crep., 1846, 142, 143, 145, 146; Dies., 1850a, 365, and 1858e, 341; Duj., 1845a, 450; Rud., 1819a, 109, 401; Stoss., 1892, 40), 155 (to Psilost., Looss) [does not use name globulus in combination with P.].—Cobbold, 1860a, 11.—Crep., 1846, 142, 143, 145, 146.—Dies., 1850a, 365; 1858e, 341 (in *Anas Cygnus ferus*).—Duj., 1845a, 450.—Olfers, 1816, 46.—Stoss., 1892, 182.—Also reported for *Alca torda*, *Anas fuligula*, *A. marila*, *A. sponsa*, *Dafila acuta*, *Fuligula cristata*, *F. marila*, *Harelda glacialis*, *Mergus merganser*, *M. serrator*.
- gobii* Stoss., 1883, 116–117, pl. 2, figs. 6–7 (in *Gobius jozo*; Trieste); 1886, 29; 1890, 41; 1898, 45; 1904, 12 (to *Helicometra*).—Braun, 1891d, 421; 1892a, 711, 765.—Carus, 1884, 124.—Condorelli-Francaviglia, 1898, 7.—Looss, 1901d, 399.—Mont., 1893, 83, 95, 102.—Odhn., 1901, 494, 495; 1902, 160.—Sons., 1891, 258.

DISTOMA—Continued.

- gobii* Rentsch, 1860, 43-50, pl. 11, figs. 3-5, 8-9b-d; pl. 12, figs. 1, 5c-e (in *Gobius minutus*) [called also *D. gobii minuti* in description of plates].—Also reported for *Gasterosteus spinachia*.
- gobii minuti* Rentsch, 1860, in descr. of plates (for *D. gobii*).—Odhn., 1901, 495.
- goliath* Ben., 1858b, 95-97, 1 pl., figs. 1-5 (in liver of a *Balæna*); 1858f, 282; 1870, 365.—Braun, 1891d, 423; 1892a, 586, 721; 1893a, 875; 1893d, 466; 1902, Nov. 17, 800-803, 1 pl., to *Lecithodesmus*; 1902, Dec. 30, 841-842; 1905, July, 51, 53.—Cobbold, 1860a, 8.—Dies., 1858e, 336-337 (in *Balæna borealis* [*Balænoptera rostrata* Fabricius]).—Hahn & Lefevre, 1884a, 516.—Jægers., 1891, 132.—Lœnnberg, 1891, 71-73.—Odhn., 1905, 344, 347 (to *Lecithodesmus*).—Stoss., 1892, 34-35 (in *Balæna mysticetus*, *Balænoptera rostrata*).—Villot, 1878, 2.
- gracile* (Leidy, 1856) Dies., 1858e, 336 (in *Esox spec.*, *Pomotis vulgaris*).—Braun, 1893a, 871; 1900h, 43, 44, 45.—MacCallum, 1899, 704.—Mont., 1893, 155.—Stoss., 1886, 50.—Also reported for *Apogon anullorum*.
- gracile* of Wright, 1879, 9 (in *Perca flavescens*).—Braun, 1899g, 491 (probably syn. of *Clinost. marginatum* Rud.); 1900h, 43, 45.
- gracile* of Lint., 1898, 523-524, pl. 46, figs. 6-8 (in *Lepomis auratus*, *Eupomotis pallidus*, *Chænobryttus gulosus*).—Braun, 1899g, 491 (probably syn. of *Clinost. marginatum* Rud.); 1900h, 44, 45 (thinks Poirier's form, 1886, 39, pl. 3, fig. 8, from *Axinurus dugesi*, may belong here).
- gracile* of MacCallum, 1899, 704, pl. 39, fig. 7.—Braun, 1900h, 44, 45, probably syn. of *Clinost. marginatum*.
- gracilescens* Rud., 1819a, 111, 409 (in *Lophius piscatorius*; Triest).—Braun, 1893a, 886.—Bremser, 1824c, pl. 9, figs. 17-18.—Cobbold, 1858b, 161, pl. 32, figs. 33-37 (in *Lophius piscatorius*); 1879b, 462.—Crep., 1837, 326.—Dies., 1850a, 374-375; 1858e, 361 (in *Loph. pisc.*) (to *Rhipidocotyle*).—Duj., 1845a, 462.—Kroyer, 1838-40a, 471.—Linst., 1878a.—Maddox, 1867, 97.—Stoss., 1898, 61.—Tennent, 1906, 638 (to *Gasterost.*)—Wagener, 1860, 189.
- grande* Rud., 1819a, 676-677 (in *Platalea ajaja*; Brazil).—Braun, 1901g, 561, 564-565; 1902b, 24 (of Braun, 1901g, 564; Dies., 1850a, 346 (of Duj.); 1845a, 446 (of Rud.); 1819a, 676; and of Stoss., 1892, 2; to *Mesaulus*), 26, figs. 16-19.—Cobbold, 1860a, 12.—Dies., 1850a, 346-347.—Duj., 1845a, 446.—Odhn., 1902, 32, 34, 35.—Stoss., 1892, 182.
- grandiporum* Rud., 1819a, 110-111, 407-408 (in *Muraena helena*; Naples).—Braun, 1893a, 873.—Cobbold, 1860a, 23.—Dies., 1850a, 342, 371-372 (includes *D. varium* Eysenhardt, *D. dimidiatum* Crep.).—Duj., 1845a, 421.—Johnston, 1901, 337.—Kroyer, 1852-53a, 778 (in *Acipenser sturio*).—Lint., 1898, Jan. 20, 520-521, pl. 44, fig. 9; 1901, 415, 418, 436, 486 (in *Anguilla chrysypa*, *Pseudopleuronectes americanus*); 1905, 328, 334, 351 (in *Leptocephalus conger*).—Looss, 1899b, 640 (to *Hemiurus*).—Luehe, 1901, 476-477.—Mol., 1859, 826-828, pl. 2, fig. 5 (syns. *D. varium* Eysenh., *D. dimidiatum* Crep.) (in *Accipenser sturio*, Greißwald; *Anguilla vulgaris*, Padua; *Muraena helena*, Naples).—Odhn., 1905, 360.—Olss., 1876, 20.—Stoss., 1886, 14; 1902, 582.
- granulum* Rud., 1809a, 394-395 (in *Cottus scorpius*) (includes *Fasc. scorpii* Mueller, 1776); 1819a, 106.—Cobbold, 1860a, 27.—Dies., 1850a, 366.—Duj., 1845a, 457.—Kroyer, 1838-40a, 138, 368 (in *Zoarces viviparus*, *Cottus scorpius*).—Nord., 1840, 620 (syn. of *Fasc. scorpii*).—Olfers, 1816, 46.—Stoss., 1886, 50.
- grassum* Biermer, 1863a, 395 (for *crassum*).
- gruis* (Gmelin, 1790) Zed., 1803a, 221-222.—Baird, 1853a, 55 (syn. of *D. echinatum* Zed.).—Dies., 1850a, 383 (syn. of *D. ech. Zed.*).—Rud., 1809a, 432; 1819a, 115.
- gulosus* Lint., 1901, 415, 418, 454, figs. 315-317 (in *Rhombus triacanthus*).—Nicoll, 1907, 69.
- gyrini* Linst., 1884, 141-142, pl. 10, figs. 27-28 (in tadpole of *Rana temporaria*).—Braun, 1893a, 870.—Stoss., 1889, 68.
- hæmatobe* Ben., 1858a, 219 (for *D. hæmatobium*).
- hæmatobium* Bilharz, 1852a, 72-76 (in *Homo*; Egypt); 1853a, 454-456, figs. a-k; 1853 [in Sieb., 1853], 59-62, pl. 5, figs. 11-15 (in *Homo*; Egypt); 1856a, 49-52, 65-68.—Agnew, 1881, 709.—Aitken, 1866, 841, fig. 14a (to Bilharzia); 1872, 206, fig. 37.—Albarran, 1897b, 1098, 1104, 1105, 1106.—Almeida Couto,

DISTOMA—Continued.

1872, 4, 6, 7, 13, 24, 42.—Anders, 1903, 6. ed., 1245–1246.—Batho, 1872b, 502; 1872, 331.—Belleli, 1885b, 54–56, figs. 19–20.—Ben., 1858a, 1861a, 188, 199, 200, 201; 1878a, 276.—R. Bl., 1888a, 636 (includes Bilh. hæm. Cobbold).—Bomford, 1887a, 53–55, pl. 11 to (Bilh.), reported for cattle in Calcutta.—de Bonis, 1876, 158, pl. 2, figs. 14–15; 1882, 174, pl. 2, figs. 14–15.—Bouchut, 1879a, 874–877 (chyluria).—Bowlby, 1891a, 194–195 (eggs in lungs and urinary organs).—Braun, 1883a, 41, 66–68, 181, fig. 17; 1903, 3. ed., 169 (to Schistosomum).—Brooks, 1897a, 492–493 (case in N. Y.).—1897, 617.—Burghart, 1904, XI, 6 (eggs); 1904, XII, 13, 2250.—Cantani, 1886, 9 (hematuria); 1886, 73.—Cobbold, 1859d, 364; 1860, 31; 1864b, 34, 197–204, figs. 44–45; 1865, —; 1865, 617; 1866, 6; 1871h, 359; 1871g; 1871k; 1873, 145; 1879b, 39.—Crevaux, 1874a, 173, 177.—Da Costa, 1884, 935.—Damaschino, 1882a, 949; 1882, 150; 1883a.—Dav., 1860, 312; 1877a, pp. lxxvii, lxxix, fig. 41; 318–321, fig. 13; 939, 940–944, 946, 973.—Delafield & Prudden, 1897, 130.—Dunglison, 1893, 142, 338, 506, 820, 1174.—Ebstein, 1884a (vesicle calculi).—Eichhorst, 1901a, 301.—Fritsch, 1867a, 752.—Goubert, 1878a, 132–133, fig. 61.—Griesinger, 1854a, 561–575; 1866a, 96; 1866, 381 (hæmatobium); 1872a, 472.—Guès, 1879a, 168.—Günther, 1858a, 208–209.—Hackley, 1886a, 519, fig. 885.—Handford, 1887b, 240–245, pl. 7, figs. 1–3; 1889a, 424–425.—Harley, 1865; 1869, 394; 1869, 379–387; 1871, 47; 1871, 359.—Haupt, 1878a, 19–20.—Hillmantel, 1893a, 230–233, figs. 1–3; 1893b, 4 pp., 3 figs.—Hoek, 1859, 42 (D. hæm. venæ portarum).—Huber, 1894, 294, 295, 296, 297, 298, 299; 1896, 580 (to Bilharzia).—Ijima, 1889b, 155.—Joel, 1866a, 308.—Jourdan, 1877a.—Kartulis, 1885a, 139–145, figs. 1–4 (eggs in abdominal organs); 1885b, 188–189; 1898b, 474–486, fig. 1; 1898c, 258–259.—Keating, v. 3, 768.—Koch, —, 11, 14, 21.—Kuech., 1855, 212–222, pl. 6, figs. 1–3.—Lancereaux, 1876.—Leão, 1896a, 233–234.—Lejtenyi, 1881a, 3.—Leuck., 1863a, v. 1, 9, 47, 49, 50, 111, 127, 449, 453, 455, 466, 488, 526, 617–632, figs. 145, 208–216; 1868, v. 2 (2), 458; 1876, v. 2 (3), 628, 629, 630, 633, 637, 638, 873; 1879, 10, 58, 59, 61, 163, 165, 166, 188, 211, figs. 29, 78.—Leuck., 1886d, 7, 44, 46, 47, 127, 128 to (Bilharzia), 129, 148, 166, figs. 29, 78.—Lewis, 1872, 3.—Looss, 1892, 82; 1905, 100 (to Schistosoma).—Manson, 1901, 542 (to Bilharzia); 1903, 3. ed., 605 (to Schistosomum).—Mantey, 1880.—Meckel, 1856, 46–47.—Meinecke, 1897a, 209–211, 1 pl. (bladder case).—Meissner, —, 84–85.—Mosler & Peiper, 1894, 179–185, figs. 71–73.—Moul., 1856a, 25, 48, pl. 4, fig. 25.—Nachtigal, —, Nitze, 1891, 40, 1891, 692.—Ogden, 1900, 267–268, figs. 49–50.—Paul, 1860, 20.—Purdy, 1900; 208–210, figs. 32–33.—[Renoult, 1808, 366–370].—Reyer, 1856, 214.—Rieder, 1899, 84, fig. 19.—Rindfleisch, 1884, 203, 210–211.—Roberts, 1865, 493.—Rochard, 1871, 298.—Roger, 1901, 95.—Ruetimeyer, —.—Sachs-Bey, 1880, 1253–1255.—Sandwith, 1901, 690.—Schiess-Bey, —, 303.—Schneidemuehl, 1896, 300–301.—Shaw, 1901, 645.—Sieb., 1852, 59–62, 71; 1852, 537; —, 454.—Simon, 1897, 99, 209, 224, 510.—Simpson, 1872, 320–321.—Sondern, 1897, 554–557, figs. 1–6.—Sons., 1875, 9; 1876, —.—Stiles, 1898a, 58–60 (to Schistosoma), figs. 41–44, 48.—Stiles & Hass., 1898a, 93, 98 (type of Schistosoma).—Stoss., 1892, 5 (to Gynæcophorus).—Swart, 1862, 33, 36–37.—Tedeschi, 1886, 73–75.—Thacher, 1893, 826.—Wagener, 1857, 26.—Wagner, 1883, 121–122.—Ward, 1895, 253 (to Gynæcophorus), 328; 1903, 872 (to Schistosoma).—Weichselbaum, 1898, 315.—Wood & Fitz, 1897, 9, 335.—Virchow, 1891, —.—Zancarol, 1882, 144; 1883, 45; 1884, 306.—Zuckerlandl, 1880, 1253.—Zuern, 1882, 220, 223.

hæmatobium hominis Dies., 1855, 63, footnote (for D. hæmatobium).

hæmatobium venæ portarum Hoek, or Pag., 1859, 42 (for D. hæmatobium).

hæmatoma Braun, 1891d, 426, see hematoma.

hælcis (Gmelin, 1790) Zed., 1803a, 222.—Dies., 1850a, 372 (syn. of D. ocreatum Rud.).—Mont., 1891, 496.—Rud., 1809a, 398.

halosauri Bell, 1887a, 116–117 (in Halosaurus macrochir; Cape St. Vincent).—Braun, 1892a, 580, 665; 1893a, 876; 1893d, 467.—Hoyle, 1890, 540.—Mont., 1889, 322; 1893, 83.

helicis Leidy, 1847, 220–221 (in Helix alternata).—Dies., 1855a, 398 (renamed Cercariæum Helicis alternatæ); 1858d, 278 (syn. of Cercariæum vagans).

helicis asperæ Dies., 1850a, 302–303 (based on Duj., 1845a, 472, in liver of Helix aspersa) (to Heterost.).

helicis pomatiæ Dies., 1850a, 303 (to Heterost.), see also Mueller's Arch., v. 5, p. 71, pl. 1, fig. 7.—Vaney & Conte, 1899, 196.

DISTOMA—Continued.

- hematoma* Sempurum, 1890, 596 (in Homo; Cuba).—R. Bl., 1891p, 611–612.—Braun, 1891d, 426 (hæmatoma).
- hemicyclum* Mol., 1859, 829–830 (in *Belone acus*; Padua).—Carus, 1884, 127.—Stoss., 1886, 43 to (*Echinost.*).
- hepaticum* (Linn., 1758) Abldg. —.—Abela, 1883, 47.—Aitken, 1866, 804, 839 (to Fasc.).—Alexander, [1833a, 319–323; 1833b, 405].—Anacker, 1888b, 314; 1892c, 94.—Andral, [1829c, 504, 520]; 1829d, 633.—Appenheim, 1899, 104–105 (lungs of sheep).—Armatage, 1895, 429.—Aschoff, 1892, 495.—Askanaazy, 1901, 75.—Assénova, 1899, 21, 28, 31, 90–93, 118.—Baer, 1828f, 197–198.—Baillet, 1866b, 99–104.—Baldi, [1900a, 223].—Bellingham, 1844a, 423.—Ben., 1858a, 1861a, 100, 170, 197.—Bettend., 1897a, 4, 7, 8, 9, 12, 15, 17, 18, 26, 27, 31, 33, 34, 36, 39, 42, 43, 44, pl. 2, fig. 8, 9, 10, 13, 14, pl. 4, fig. 26, 27, 28, 29, pl. 5, fig. 33, 34, 35, 36, 37, 38, 39, 40, 41, 42; 1897b, 308, 311, 312, 313, 316, 319, 321, 322, 330, 331, 335, 337, 338, 343, 346, 347, 348, pl. 29, fig. 8–10, 13, 14, pl. 31, fig. 26–29, pl. 32, figs. 33–42.—Bilharz., 1856a, 49.—Billet, 1893a, 506, 508, 509.—Bitting, 1895b, 83–85, pls. 1–2, figs. 1–12.—R. Bl., 1886, 306; 1888a, 543 (syns. Fasc. hepatica Linn., F. humana Gmelin, F. lanceolata Rud., 1803), 543–602, figs. 295–311, 602 (of Zed., 1800; Rud., 1810, syn. of Dist. lanceolatum), 603, 606, 609, 623, 631.—Blochmann, 1892b, 650.—Boele, [1828a], 34.—Bojanus, 1817b, 274; 1821a, 162–190; 1821b, 305–307, pl. 4.—de Bonis, 1882, 105, 171, pl. 2, fig. 12.—Bos, 1894a, 240–245, fig. 141–142.—Brand., 1888a, 41, 42; 1890a, 570–572; 1891d, 7, 11, 12; 1898a, 208, 214, (16, 22).—Brass, 1885, 41.—Braun, 1883a, 41, 44, 49, 53, 59–62, 70, 71, figs. 11–15; 1890a, 473; 1890d, 568; 1891d, 425; 1892a, 568, 586, 588, 589, 591, 592, 593, 594, 596, 597, 601, 602, 603, 604, 607, 608, 609, 610, 611, 612, 616, 623, 624, 628, 629, 631, 635, 638, 641, 644, 645, 669, 674, 675, 678, 681, 682, 684, 688, 690, 695, 701, 703, 705, 712, 717, 719, 724, 725, 728, 730, 733, 745, 747, 748, 755, 766, 768, 781, 783, 798, 806, 814, 815; 1892f, 44; 1893a, 861, 865, 875, 878, 880, 882, 910; 1893f, 424; 1894i, 606; 1895b, 11, 12, 126, 132, 133, 134, 138–141, figs. 43, 46–51, 53–56; 1897a, 1387, 1467, 1468, 1522; 1900a, 1668; 1903, 147 (to Fasc.); 1906, 134, 140, 150 (to Fasc.), figs. 69, 75, 83.—Brunet, 1902, 119–128 (Tunisie).—Brusina, (1898a), 227–228.—Burm., 1837a, 529.—Buttel-Reepen, 1902, 178, 184, 185, 203.—Caracs, 1888a, 41.—Carter, 1862a, xxx–xxxii.—Carus, 1863, 479.—Chatin, 1886b, 244; 1887d, 1004.—delle Chiaje, 1833, 11–12, 115–116, pl. 2, fig. 12; [1837a, 16].—Cobbold, 1866, 6, 7, 8; 1879b, 15, 16, 17, 278; 1883p, 401; 1884g, 976 (of Taylor).—Cope, 1887, 392; 1887, 546.—Crep., 1837a, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 325, 326, 327, 328; 1839a, 288; 1841a, 80.—Creutzburg, 1890a, 10, 11, 21.—Da Costa, 1884, 935.—Darr, 1902, 683.—Dav., 1877a, lxxv–lxxvi, figs. 35–38, 240–257, 321–330, 781, figs. 2, 7, 14.—Desmonceaux, 1868, 6.—Dewitz, 1892, 117–125, figs. 62, 66, 68, 70, 75, 77, 78.—Dies., 1836, 240; 1850a, 332–333 (syns. Fasc. hepatica Linn., Dist. hepaticum Zed.), 333–334 (of Zed., 167, syn. of Dist. lanceolatum Mehlis); 1858e, 331; 1859c, 427.—Duncker, 1881a, 24.—Dunglison, 1893a, 338, 424, 820, 875, 1174.—Eichwald, 1829a, 248.—Eiss, 1838a, 21–22.—Encycl. méthodique, Par., 1824, v. 2, 316.—Encycl. metropolitana, 1845, v. 18, 141.—Erc., 1881e, [58, 64, 69, 90, 91]; 1882a, 294, 300, 305, 326, 327.—Eschricht, 1840a, 73; 1855, 1.—Fagge & Pye Smith, 1902, 4, ed., 475 (to Fasc.).—Fenger, 1854, 173.—Fischer, 1883a, 24, 25, 29, 40.—Fischder., 1903b, 507.—Fitz., 1876a, 1876b, 513, 514.—Florance, 1866a, [22].—Fraip., 1880a, 398; 1880c, 418, 426, 428; 1881b, 36, 39; 1883a, 35, 41.—Francis, 1891c, 127–130, pls. 1–2; 1892b, 608; 1894a, 450.—Fritsch, 1885a, 408; 1888a, 212.—Gaede, (1817a), 8.—Gaffron, 1883a, 509.—Gamb., 1896, 4, 63, 64, 68, 72.—Ghose, 1869a, 210–211 [evidently *D. crassum*].—Giard & Billet, 1892a, 614.—Gomez, 1879a, 81–89.—Gomy, 1897a, 372.—Gosse, (1857a), 124.—Grall, 1884a, 460, 469.—Griffith & Henfrey, 1883a, 268.—Gronkowski, 1902a, 511, 512, 514, 515–517, 518, 519, 521, 522, 523–529, 530, 531, 532, 533 [4, 5, 7, 8–10, 11, 12, 14, 15, 16–22, 23, 24, 25, 26], figs. B, C, pl. 13, figs. 1, 5, 16.—Günther, 1858a, 205–207.—Gurlt, 1831, 193, 370–372, pl. 8, figs. 29–33.—Hackley, 1886, 518, fig. 880.—Hahn & Lefèvre, 1884a, 516–537, 538, 539, 541 (syn. Fasc. hep.); 1884, 805.—Harley, 1864a, 62.—Harris, 1899a, 900.—Henneguy, 1906, 47–88, pl. 3, figs. 1–24; 1906, 46–48, pl. 3, figs. 1–24.—Hoeven, 1859, 211.—Huber, 1896, 576 (Bassi's magna).—Hutcheon, 1903m, 551–554 (pathology).—Jamieson, 1897a, 73.—Janson, 1893c, 261.—Joy, 1835a, 504, 505, 518–519; 1845a, —.—Juel, 1889, 13, 14, 16, 19, 22, 26, 29, 36, 41.—Kampmann, 1894b, 445.—Kastenbaum, 1899, 243–248, fig. 33, 34.—Kath., 1894a, 143.—Kerbert, 1881a, 530, 536, 538, 539, 540, 547, 551, 565, 566, 567, 569, 570.—Kholodk., 1898a, 24, 25, 26, 27, pl. 10, fig. 5, 22;

DISTOMA—Continued.

1899a, 149-165, figs. 171-174, 177f, 178.—Kitasato, (1884a), May 10.—Knoch, 1894a, 4, 11, 12, 13, 16.—Kowal., 1894a, 220; 1895c, 372-390, pl. 8, fig. 8; 1895g, 20, [60]; 1896d, 7, [257] (in *Cervus capreolus*; Dublany); 1896i, 9, [353].—Krabbe, 1865, 60.—Kuech., 1855, 183-207, 208, 210, 241, 481, pl. 5, figs. 1-10; 1857, 247-272, pl. 5, figs. 1-10.—Kuech. & Zuern, 1881, 290, pl. 7, fig. 1, 2, 4, pl. 8, fig. 14.—Lamouroux, 1824a, 560, 561, 562, 563.—Lampert, 1898a, lxxxi-lxxxiii.—de Lanessan, 1882, 221-238, figs. 193-203.—Laspeyres, 1904a, 5, 7.—Leidy, 1874b, 364-365.—Lejtenyi, 1881a, 5, 7, 8, 11, 16, 18.—Leuck., 1863, 13, 14, 48, 100, 456, 457, 458, 463, 464, 465, 469, 471, 472, 475, 476, 479, 480, 483, 484, 487, 488, 490, 517, 520, 522, 526, 527, 529, 530-586, 587, 588, 589, 590, 591, 593, 594, 595, 596, 597, 599, 601, 602, 603, 604, 605, 606, 607, 608, 609, 612, 626, 740, 765, fig. 153, 156, 160, 165, 182, 184-191, 193; 1868, 405; 1876, 868-870, 871, 872; 1879, 16, 17, 59, 74, 164, 186, 208, fig. 39, 68, 69, 70; 1882f, 524-528; 1882g, 320-322; 1886, 12, 46, 56, 73, 81, 128, 146, 147, 161, 164, 589, fig. 35, 39, 68, 69, 90; 1892b, 797, 799.—Lindquist, 1882, 180; 1887, 391.—Linst., 1873, 98, 99, 101, 102; 1883, 308; 1890f, 175; 1901, 280; 1906, 175 (syn. *Fasc. Linn.*, 1746, which included *Dist. hep.*, *Dendrocoelium lacteum*, and *Schistocephalus solidus*).—Looss, 1885b, 6, 7, 10, 12, 15, 17, 19, 25, 26, 31, 34, 38; 1892, 126, 132-136, 141, 179; 1894, 1, 19, 65, 93, 115, 116, 117, 118, 120, 122, 125, 131, 138, 142, 144, 153, 159, 171, 172, 180, 181, 206, 212, 215, 220, pl. 6, figs. 118-120; 1895, 75, 85; 1896, 33-36; 1898, 459; 1899, 556; 1905, 88 (to *Fasc.*).—Love, 1896a, 48-49.—Ludwig, 1886a, 852-853, figs. 803, 805, 809.—Lutz, 1893a, 128.—Macé, 1882, 91 pp., 3 pls.—Manson, 1903, 3 ed., 639.—Mégnin, 1882s, 221 (in lungs of *Bos taurus*).—Michalik, 1891, 57.—Minot, 1884a, 418.—Miura, 1889, 317.—Mlinarich, 1832, 14.—Mol., 1859, 825.—Moniez, 1896, 321.—Mont., 1888, 14, 23, 24, 32, 37, 38, 39, 40, 41, 43, 47, 49, 50 (epaticum), 52, 53, 54, 56, 57, 58, 59, 60, 69, 72 (hepaticum), 73, 74, 75, 76, 80; 1893, 7, 12, 13, 22, 25, 26, 31, 33, 37, 38, 40, 41, 44, 45, 65, 66, 72, 75, 76, 77, 83, 85, 86, 88, 95, 99, 102, 104, 106, 110, 113, 132, 142, 207, 212.—Mosler & Peiper, 1894, 169-175, figs. 65, 66.—Moul., 1856a, 12, 17, 18, 19, 21, 23, 43, 102, 267.—Muehl., 1898, 9, 21.—Nord., 1832a, 47, 55; 1840, 547, 616, 617.—Ofenheim, 1900, 152.—[Organesyantz, 1873-74, 205].—[Oken, 1835, 550-551].—[Olfers, 1816, 4; 1816, 30, 44].—Oppenheim, 1899, 104-105.—Owen, 1843, 56, fig. 27.—Packard, —, 522.—Padrone, 1904, 489.—Pag., 1857, 53.—Parker, E. A., 1891, 79, 124, 266, 268.—Parkes, L. C., 1889, 71, 310.—Paul, 1860, 20.—Poir., 1885, 1, 4, 20, 23, 32, 37, 40, 46, 50, 51, 55, 56, 66, 67, 70, 77, 80, 90, 92, 93, 94, 101, 102, 113, 114, 115, 116, 117, 118, 120, 131, 133, 144, pl. xxvii, fig. 2, 3, pl. xxix, fig. 5, pl. xxx, fig. 4; 1887, 203-208, 210.—Prunac, 1884, 14 pp.—Rail., 1886, 286, 293, figs. 180-189; 1890, 836-839; 1890, 143.—Rail. & Marotel, 1898, 31, 32.—Ratz, 1898, 298; 1899, 617; 1900, 532.—Rindfleisch, 1884, 210.—Risso, 1826, no. 34; 1826, 262.—Rivolta (1881), 68; (1887), 391.—Roberts, 1888, 686.—Roewer, 1906, 187.—Rossbach, 1906, 381, 387, 392, 394, 402, 414, 419, 428, 429, 432, pl. 19, figs. 47-48.—Rud., 1803, 62; 1809a, 50, 214, 349, 352-357 (syns. *Fasc. hep. Linn.*, *latiuscula Geze*, *Fasc. humana Gmelin*, *Dist. hep. Zed.*, *Fasc. lanceolata Rud.*), 378; 1819a, 92-93, 363-364, 576-577, 583, 588, 616, 617.—Ruser, 1892, 548 (in lungs).—St. Remy, 1891, 220.—Schaeffer, 1721, 1719-1721.—Schauinsland, 1882, 497.—Schneidemuehl, 1896, 296-300.—Schubart, 1853, 28-31.—Schuberg, 1894, 185.—Seeger, 1852, 51.—Shaw, 1901, 619, fig. 220.—Sidekrift. *Vet. Med.* (1882), (see also *Amer. Vet. Rev.*, 1887, 391).—Sieb., 1835, 57, 64, 65; 1836, 233, 237; 1850, 644, 672, 673; 1854, 7.—Signal, 1884, 232.—Simon, 1896, 182, 190, fig. 51; 1897, 209, 222-223, fig. 52.—Sjoberg, 1830, 10.—Steenstrup, 1842, 27.—Stevenson, 1892, 274, 498.—Stiles, 1898a, 29, 49; 1905z, 14.—Stiles & Hass., 1892a, 89.—Stoss, 1892, 7 (to *Cladocelium*).—Tasch., 1878, 176.—Taylor, 1885, 58-60, 1 fig.—Tennent, 1906, 666.—Theobald, 1900, 52.—Thomas, 1883, 329.—Vogt, 1878, 9, 38, 42, fig. 28, 35.—Vogt & Yung, 1888, 226-248, figs. 99-108.—Wagener, 1860, 174.—Wagner, 1883, 109, 120-121.—Wallenstedt, 1847, 7.—Walter, 1858, 269-297, pls. 11-13.—Ward, 1895, 246 (to *Fasc.*), 253 (in part *Curtice*, syn. of *Fasc. magna*); 1903, 865 (syn. *Fasc. hep.*).—Weichselbaum, 1898, 314.—Weinland, 1859, 280.—Wheeler, 1894, 117-118 (New Orleans).—Will.-Suhm, 1870, 1; —, 175-179.—Wolf, 1903, 612, 613, 616.—Wood & Fitz, 1897, 336.—Ziegler, 1883, 542, (543), 545, 546, 553, 556, pl. 33, fig. 13, 14, 15; 1883, 488.—Zuern, 1882, 204, 208, 209, 211, 216, pl. 4, figs. 5-9.

—— *hepaticum*, anatomy of: Havet, 1900b, 351-381, pls. 1-4, figs. 1-28 (nervous system).—Macé, 1882, 91 pp., 3 pls., 18 figs.; 1882, 7-9.—Marcinowski, 1903a,

DISTOMA—Continued.

- 544-550; 1903b, 477; 1903c, 2391; 1903d, 738-739; 1905a, 21-22 (Schlundganglion).—Mehlis, 1825, 42 pp., pl. 1; 1826, 627.—Prenant, 1904, 522-525 (intest. epithelium).—Sommer, 1880, 539-640, pls. 27-32.—Veratti, 1900, 115-125 (nervous system).
- *hepaticum*, embryo of: Coe, 1896a, 561-570, pl. 42, figs. 1-5; 1897a, 30.
- *hepaticum*, geographic distribution of: Brunet, 1902a, 119-128 (Tunisie).—Mol., 1859, 825 (*Ovis aries*, *Bos taurus domesticus*, *Equus caballus*; Padua).—Saito, 1906, Aug. 7, 822.
- *hepaticum*, intermediate host of: Agric. J., Cape Town, 1896, Apr. 30, 221.—Cherry, 1896a, 183 (*Bulimus*, in Victoria).—Studer, 1882, 10-11.
- *hepaticum*, in various animals: LUNGS OF CATTLE: Barbagallo, 1903-4, 165 (Catania).—Cope, 1887a, 385-386.—Curtice, 1887a, 390-392.—Hedley, 1881a, 374-375; 1881b, 399-400; 1881c, 27-28.—Littlewood, 1887a, 546.—Ménin, 1882, 221.—Morot, 1889, 159.—Murray, 1882, 100-103.—Schmidt, 1887, 361-362 (Europe).—Vet. J. & Ann. Comp. Path., Lond., 1899, v. 49, Sept., 179-180.—IN MAN: R. Bl., 1888a, 589-595; 1891p, 604-606 (Sagarra's case in 1890 in Spain).—Carter, 1862a (India).—Lockwood, 1901a, 2 ed., 821.—Manson, 1901, 539, 540 (also life cycle).—Preuss. Militärärztl. Ztg., 1863, v. 3 (2), 15.—Tyson, 1903, 3 ed., 1180.—Ward, 1895, 328.—IN SHEEP: Brett, 1881a, 139-142; 1881b.—Curtice, 1890c, 16-17, 127-134, pl. 16.—Friedberger, 1878a, 145-166.—Lesson, 1812a.—Lydtin, 1890a, 373 (in bronchi).—Trollip, 1893, 424-425.—Sclavo, 1900-01, (41); 1902, 221-222.—MISCELLANEOUS: Anders, 1903, 6. ed., 1245 (horse, goat, ass, sheep, rabbit, man).—Hutcheon, 1900i, 497 (duiker antelope).—Joel, 1866a, 308 (*Bos taurus*; liver).—Piana, 1882, 12 pp. (domestic ruminants; liver).—Ward, 1895, 332 (*Bos taurus*), 335 (*Ovis aries*), 338 (*Equus caballus*).—See also *Fascioliasis*.
- *hepaticum*, life history of: Erc., 1881a, 123-130; 1881b, 320-326; 1881c, 11 pp.; 1881d, 229; 1881, v. 7, 443-447.—Gulliver (1840c), 30-31 (eggs); 1841a, 507-508; 1842a, 95.—Henneguy, 1902a, 1235-1238 (egg, maturation, fecundation); (1902b), 128-131; 1905, July, 49.—R. Leuck., 1881c, 641-646; 1882a; 1882b, 80-119; pl. 8, figs. 1-9; 1882c-e; 1882f, 524-528; 1882g; 1883a; 1884c.—Lutz, 1892a, 783-796, figs. 1-5; 1892b, 436-437; 1892c, 301-306; 1893b, 320-328; 1893c, 389-393; 1893d, 24-25.—Minot, 1884, 418.—Schauinsland, 1882, 494.—Weinland, 1883, 89-98.
- *hepaticum*, method of feeding of: Bossuat, 1902, 186-187; Rail., 1890, Mar., 88-92; 1890, June 30, 271-272; 1890, Aug. 22, 277.
- hepaticum ægyptiaca* (also *egyptiaca*) Looss, 1896b, 10, 33-36, 151, 183, 192, 204, 205, pl. 3, fig. 16, pl. 11, figs. 117-118 (in "buffles, bœufs, moutons;" Alexandria); 1898a, 459, 460.—Linst., 1901, 420 (in *Bos zebu*, *Ovis aries*).
- hepaticum angusta* (Rail., 1895) Looss, 1898a, 459.
- hepaticum hominis* Cobbold, 1884g, 976.
- hepaticum (perniciosum)* Taylor, 1884, 52-53, fig. 2.—See *hepatis perniciosum*.
- hepatis endemicum* Bælz, 1883, 234-236, fig. 1 (in Homo; Japan).—R. Bl., 1888a, 618 (syn. of *D. japonicum*), 619-621, figs. 320-322 (description and infection); 1891, 607 (syn. of *D. sinense* Cobbold).—Braun, 1903, 3. ed., 161 (syn. of *Opisthorchis sinensis*).—Hahn & Lefèvre, 1884a, 542-544.—Kamensky, 1900a, 18.—Katsurada, 1900, 479.—Looss, 1905, 90 (syn. of *Opisthorchis sinensis*); 1907, Feb. 1, 140.—Rail., 1893a, 362 (syn. of *D. sinense*).—Ward, 1895, 328 (in Homo) (syn. of *D. sin.*); 1903, 870 (syn. of *Opisthorchis sinensis*).—See *Clonorchis*.
- hepatis innocuum* Carès, 1888a, 41, pl. 1, for *innocuum*.
- hepatis innocuum* Bælz, 1883, 236, fig. 2.—Billet, 1893a, 509 (syn. of *D. sinense* Cobbold).—R. Bl., 1888a, 618 (syn. of *D. japonicum*), 621-622, figs. 323-324; 1891, 607 (syn. of *D. sinense*).—Braun, 1903, 3. ed., 161 (syn. of *Opis. sin.*).—Carès, 1888a, 41, pl. 1 (*innocuum*).—Cobbold, 1884g, 976.—Grall, 1887a, 460, 468, 469, 1 fig.—Hahn & Lefèvre, 1884a, 544 (syn. of *D. sin.*).—Hoyle, 1890, 538.—Kamensky, 1900a, 18.—Katsurada, 1900, 479.—Looss, 1905, 90 (syn. of *Opisth. sinen.*); 1907, Feb. 1, 140.—Rail., 1893a, 362.—Ward, 1895, 328 (in Homo) (syn. of *D. sin.*); 1903, 870 (syn. of *Opisth. sin.*).—See *Clonorchis*.
- hepatis perniciosum* Bælz, 1883, 234.—Billet, 1893a, 509 (syn. of *D. sinense* Cobbold).—Carès, 1888a, 41.—Cobbold, 1884g, 976.—Grall, 1887a, 460, 469.—Katsurada, 1900, 479.—Looss, 1905, 90 (syn. of *Opisth. sin.*).—See *Clonorchis*.

DISTOMA—Continued.

hepatium Rivolta, 1884, 27, for *hepaticum*.

heteroclitum Mol., 1859, 289 (in *Perdix coturnix*; Batavii); 1861, 203.—Braun, 1893a, 874; 1902b, 116.—Dies., 1859c, 430.—Looss, 1899b, 650 (thinks this may be a *Clinost.*).—Mont., 1893, 155.—Stoss., 1892, 174 (to *Mesogonimus*).

heterolecithodes Braun, 1899a, 3 (in *Porphyrio porphyrio*; from Madagascar, Africa); 1899, 632; 1899, 133–135, 300 (in *Gallinula chloropus*, *Porphyrio porphyrio*); 1902b, 109.—Looss, 1899b, 635 (type of *Athesmia*); 1902m, 790.—Jacoby, 1899a, 133–135; 1899b, 300 (in *Gallinula chloropus*, *Porph. porph.*); 1899c, 1–30, 2 pls.; 1900, 1–11, 12, figs. 1–5.

heteromorphum Crep., 1837a, 317 (in *Trigonocephalus* sp. dub.); 1846a, 147 (in *Trigonocephalus* sp. dub.).

heterophies Perroncito, 1879, 6, for *heterophyes*.

heterophyes Sieb., 1852, 62–64, pl. 5, figs. 16–17 (in *Homo*; Egypt); 1853, 455, pl. 5, figs. 16–17.—Aitken, 1866, 804, 839; 1872, 146, 205; 1874, 58.—Arschoff, 1892, 495.—Bilharz, 1856a, 50.—R. Bl., 1888a, 625, 627, fig. 325, 631; 1891s, 791; 1891p, 609, 610, 611.—de Bonis, 1876, 163; 1882, 179.—Braun, 1883a, 66; 1892, 50; 1892a, 581, 642, 707, 735, 738; 1895b, 143–144, fig. 59; 1900h, 3, 6; 1901e, 334, 336, 337; 1903, 3, ed., 164 (to *Cotylogonimus*).—Cobbold, 1860a, 6; 1864, 194; 1866, 6; 1876, 210, 211; 1879b, 34–35, fig. 4; 1883, 401 (heterophytes).—Dav., 1877a, lxxvii.—Dies., 1858e, 332.—Dunclison, 1893, 338, 820, 1174.—Eichhorst, 1901, v. 1, 301.—Goubert, 1878, 101.—Günther, 1858, 207–208.—Hahn & Lefèvre, 1884a, 546.—Harley, 1864a, 62.—Hoek, 1859, 42 (or Pag. id.).—Hoyle, 1890, 538.—Huber, 1896a, 579.—Ijima, 1889b, 147.—Jacoby, 1900, 22, 23 (D. fraterum and D. heterophyes with D. lingua and D. concavum together form one group).—Jægers, 1898, 7, 8, 9, 12 (compares D. het., D. fraterum, D. lingua).—Jamieson, 1897a, 74.—Janson & Tokishige, 1892, 350.—Janson, 1893c, 265.—Kholodk., 1898, 26, 30, pl. 11, fig. 14; 1899a, 152.—Kuech., 1855, 210–212, pl. 4, figs. 11–12.—Kuech. & Zuern, 1881, 338.—Leuck., 1863a, 526, 613–616, 619, fig. 207; 1889, 399.—Looss, 1894d, anatomy, 1–42, pl. 1, figs. 1–8, pl. 2 (figs. 9–12); 43, 44, 45, 46, 47, 48, 49, 51, 52, 55; 1894a, 168; 1895a; 1896b, 60, 61, 63–64, 156, pl. 5, figs. 38–40; 1896h, 863–864; 1899b, 533, 539, 550, 556, 585 (type of *Cænogonimus*), 700; 1900, 607; 1902m, 804, 805, 886.—Luehe, 1899, 538, 539 (type of *Cotylogonimus*).—Manson, 1901, 541 (in man in Egypt; apparently no morbid symptoms); 1903, 3, ed., 664 (to *Mesogonimus*).—Moniez, 1896, 86, 133, 141–144, fig. 28.—Mont., 1893, 95, 155, 157; 1896, 168.—Mosler & Peiper, 1894, 177, fig. 69.—Mueh., 1898, 81, 82 (compares D. het. and D. fraterum with D. concavum, which he looks upon as *Mesogonimus*).—Paul, 1860, 20.—Perroncito, 1879, 6 (heterophies).—Rail., 1890, 138 (to *Mesogonimus*).—Roberts, 1888, 673.—Sandwith, 1899, 591; 1899, Sept. 30, 888 (case).—Schneidemuehl, 1896, 302.—Simon, 1897, 209, 223–224.—Sons., 1883, v. 1, 155 (found by Sons., Egypt); 1896, 295, 299, 314.—Stiles, 1904i, 44 type of *Heterophyes*.—Stiles & Garrison, 1906a, 76.—Stiles & Hass., 1900a, 563 (type of *Heterophyes*).—Stoss., 1892, 31–32 (to *Mesogonimus*); 1898, 42.—Swart, 1862, 37.—Verrill, 1870, 171.—Vogt, 1878, 10, 13, 14.—Wagner, 1883, 121.—Ward, 1895, 328 (in *Homo*); 1903, 870.—Wood & Fitz, 1897, 335.—Also reported for *Canis familiaris*.

heterophyes hominis Dies., 1855, 64, for *heterophyes*.

heteroporum Duj., 1845a, 402–403 (in *Vespertilio pipistrellus*; Rennes) to (*Brachycoelium*).—R. Bl., 1891, 467–468.—Brand., 1888, 249, 250, pl. 17, fig. 4.—Braun, 1891d, 421; 1892a, 568, 579, 715, 766; 1893a, 911; 1893b, 185 (in *Vesperugo pipistrellus*); 1900, 224, 227; 1900, 388.—Cobbold, 1860a, 8; 1879b, 294.—Dies., 1850a, 382–383.—Kolenati, 1857, 12.—Linst., 1884, 139.—Looss, 1892, 66; 1896b, 86; 1899b, 547, 611, 614, 618, 718 (type of *Pycnopus*); 1902m, 772.—Luehe, 1899, 536, 537.—Staff., 1903, 828.—Stiles, 1901, 197, 199, 200, 201, 202, 203.—Stoss., 1892, 12 (in *Nannugo pipistrellus*; Hameln, Rennes).

heterostomum Rud., 1809a, 50, 381–382 (in *Ardea purpurea*; t. l. apparently Europe); 1819a, 102–103, 388, 680.—Braun, 1892a, 578, 674, 721; 1893a, 872, 873, 910; 1899, 1 (*Dicrocoelium*); 1899g, 465, 484, 485, 486 (of Rud., 1809a, to *Clinost.*); 1900, 140–141; 1900h, 4, 9, 13, 14, 15, 16, 17, 18, 19 (includes the following as syns. of *Clinost. heterostomum*: Rud., 1809a, 1819a; Duj., 1845a; Dies., 1850a; Stoss., 1892; Par., 1896) (in *Ardea cinerea*, *A. purpurea*, *Nycticorax griseus*); 20, 24, 25, 26, 28, 29, 30, 31, 42, 43, pl. 1, figs. 1–2; 1901, 561.—Cobbold, 1860a, 10.—Dies., 1850a, 353 (includes *Fasc. epatica* of Rosa, in *Ardea purpurea*).—Duj., 1845a, 400.—Leuck., 1863, 503.—Looss, 1899b, 650, 651.—

DISTOMA—Continued.

- MacCallum, 1899, 697, 704, 705, 706, 707.—Mont., 1893, 95.—Olfers, 1816, 44.—Par., 1896, 2.—Stiles & Hass., 1898a, 86 (includes *C. gracile* Leidy, 1856, type of *Clinost. Leidy*).—Stoss., 1892, 64; 1892, 159; 1898, 42.—Wright, 1879, 3, pl. 1, fig. 1.—Also reported for *Ardea herodias*.
- heterostomum* from *Ardea purpurea* in Turin collection ("C. No. 43 resp. C. No. 361") and in collection of Par. (collected at Geneva).—Braun, 1899g, 491 (*Clinost. foliiforme*); 1900h, 30.
- heterostomum* Rud. of Linst., 1883, 306; 1886, 30, fig. 49.—Braun, 1899g, 491 (not *Clinost. heterostomum* but perhaps *Cl. complanatum*).
- heterostomum* Rud. of Wright, 1879, and MacCallum, 1899.—Braun, 1899g, 491 (not *Clinost. heterostomum* but probably *Cl. marginatum*); 1900h, 29, 43.
- heurteli* Poir., 1885, 9, 10, pl. 23, fig. 2 (in *Thynnus vulgaris*).—Buttel-Reepen, 1902, 167, 172, pl. 6, fig. 13.
- hians* Rud., 1809a, 359–360 (in *Ardea nigra*; Greifswald); 1814a, 101; 1819a, 94, 366, 680.—Baird, 1853a, 51 (includes *D. oesophagi ardeae nigrae* Viborg).—Ben., 1858a, 1861a, 171, 202; 1863, 295, 296, 298, 299–300, pl. 1, figs. 6–7.—Braun, 1891d, 424 (in *Ardea cinerea*); 1892a, 584, 662, 699, 764, 768, 776, 784, 785, 786; 1893a, 873; 1893, 354; 1895b, 17; 1899g, 485, 486, 489 (from *Ardea cinerea*, in Pavia, and from *Nycticorax griseus*, in Cagliari, as syn. of *Clinost. heterostomum*); 1899, 465; 1900, 24, 25; 1900h, 14, 15, 17, 18, 19, 23; 1901b, 33; 1901, 896; 1901, 561; 1902b, 4.—Cobbold, 1860a, 10.—Condorelli, 1897c, in 118–124 (in *Hydrocolæus minutus*).—Crep., 1837, 311, 316, 324.—Dies., 1836, 248; 1850a, 337–338; 1858e, 333.—Duj., 1845a, 399.—Gamb., 1896a, 63.—Gurlt, 1845, 276.—Kuech., 1855, 192.—Leuck., 1879, 14, 15; 1886d, 11.—Looss, 1892a, 14; 1899b, 562–563 (type of *Cathæmasia*).—MacCallum, 1899, 706.—Mueh., 1896, 588–589; 1896, 252–257, figs. 3, 10; 1898, 28.—Mueller, 1897, 15–16, pl. 2, fig. 6.—Nathusius, 1837, 65.—Nord., 1832a, 90, 93; 1840, 617.—Olfers, 1816, 44.—Par., 1887, 331, pro parte (in *Nycticorax griseus*) (syn. of *Clinost. heterostomum* teste Braun, 1900h, 19).—Sieb., 1835, 66, 73, 82.—Stoss., 1891, 111; 1892, 160 (syn. *D. complanatum*).—Wagener, 1857, 26.—Will.-Suhm, 1876, 337, 339.—Also reported for *Ardea nycticorax*, *A. purpurea*, *Ciconia alba*, *C. nigra*.
- hippopodii* Vogt, 1854, 97–98, 99, pl. 15, fig. 3 (in *Hippopodius leteus*; Quoy et Gaimard, Mediterranean).—Braun, 1893a, 852.—Græffe, 1860a, 13.—Mont., 1888a, 77; 1888, 195; 1893, 124.
- hirundinis* Brand., 1888a, 13, misprint for *hirudinis*.
- hirsutum* Looss, 1896b, 68–73, 76, 78, 81, 98, pl. 5, figs. 45–49 (in *caméléon*; Alexandria); 1899b, 547 to *Lecithodendrium*.—Luehe, 1899, 536.—Stiles, 1901, 200.
- hirudinis* Henle.—[Crep., 1841a, 79 (*Distome* in *Hirudo vulgaris*), does not use combination].—Dies., 1850a, 418 (syn. of *Heptast. hirudinum* Schomburgk).
- hirundinum* Zed., 1800a, 163, 169–171 (for *hirundinis* Frelich) in *Hirundo apus*, *H. urbica*; Europe; 1803a, 210.—Braun, 1901, 566; 1902b, 46 (syn. of *Plagiorchis maculosus*).—Dies., 1850a, 349 (syn. of *D. maculosum*).—Rud., 1809a, 374.
- hispida ventriculi accipenseris sturionis* Viborg, 1795, 243, see *hispidum*.
- hispidum* Abildg. in Rud., 1819a, 118, 423–424 (in *Accipenser sturio*; Arimini, Berlin); 1809a, 435 (syn. of *D. sturionis* for *D. hispida accipenseridis sturionis*).—Ben., 1870, 83.—Braun, 1892a, 567, 583, 594, 729, 737;—Carus, 1884, 126.—Cobbold, 1858b, 162, pl. 32, figs. 47–48, pl. 33, figs. 49, 50 (in *Accipenser sturio*); 1860a, 36.—Crep., 1829, 73–76; 1837, 311, 312, 325.—Dies., 1850a, 392–393.—Duj., 1845a, 470.—Kroyer, 1852–53a, 21, 778 (in *Accipenser sturio*; *Osmerus eperlanus*).—Leidy, 1887, 24.—Lint., 1901b, 414, 422, 478, fig. 321, 322, 323 (in *Phycis tenuis*); 1905, 328, 334, 364, 400, 478 (includes as hosts: *Menticirrhus americanus*; *Seriola lalandi*).—Looss, 1894a, 218; 1899b, 576, 581; 1901, 634.—Mehlis, 1831, 187–190.—Nord., 1832a, 90.—Odhn., 1902, 154.—Stoss., 1885, 156; 1886, 41; 1891, 216.—Also reported for *Accipenser glaber*, *A. ruthenus*, *A. stellatus*.
- histrix* Dies., 1850a, 393–394 for *D. hystrix*; 1858d, 268.—Duj., 1845a, 433.—Mol., 1858, 131; 1861, 223.—Mont., 1888, 198.
- holostomum* Rud., 1819a, 94–95, 368 (in *Rallus aquaticus*; Vien. Mus.).—Braun, 1892a, 772; 1901, 561, 565; 1902b, 136 (syn. of *Urogonimus macrostomus* Rud.) (includes Dies., 1850a, 339; Duj., 1845a, 446; Rud., 1819a, 94, 368; Sieb., 1848, 144; 1853, 433; Walter, 1866, 14; Zeller, 1874, 574), 137.—Cobbold,

DISTOMA—Continued.

- 1860a, 11.—Dies., 1850a, 339, includes *D. ralli*; 1858d, 277.—Duj., 1845a, 446.—Fil., 1855b, 25.—Moul., 1856a, 21, 183 (in *Rallus aquaticus*; *Gallinula porzana*; *G. chloropus*).—Par., 1896, 2.—Sieb., 1836, 234.—Stoss., 1892, 145, to *Cladocœlum*.—Wagener, 1857, 24, 45.—Walter, 1866, 64.
- homœostomum* Dies., 1858e, 343 (*D. Trigla pini* Bellingham, 1844a, 428 renamed) (t. h. *Trigla* (Pini) cuculus; in ventriculo, *Hibernia*, Bellingham).—Cobbold 1860a, 30.—Stoss., 1886, 50.
- homolostomum* Linst., 1887, 104–105, pl. 2, figs. 5, 6, 17a (in *Limnæa stagnalis*).—Braun, 1893a, 873.
- horridum* Leidy, 1850, 303–304, pl. 43, fig. 1 (in *Boa constrictor*); 1850f, 118; 1856b, 44; 1904a, 41, 87, 227.—Braun, 1893a, 876; 1893d, 467.—Cobbold, 1860a, 20.—Dies., 1858e, 355.—Looss, 1894a, 196.—Luehe, 1899, 531, 532.—Sons., 1890,—; 1893, 499; 1893, 215–216; 1893, 2 pp.; 1893, 28 Oct., 566.—Stoss., 1895, 220 (in *Python molurus*); 1904, 2.—Volz, 1899, 235, 237.
- hospitale* Staff., 1900, 403, fig. 3 (in *Diemyctylus viridescens*); 1902, 481 (in *Plethodon*) to (*Brachycœlum*).
- hyalinum* Rud., 1809a, 389 (in *Salmo eriox*) *Fasc. eriocis* renamed; 1819a, 105.—Cobbold, 1860a, 26.—Dies., 1850a, 363.—Duj., 1845a, 465.—Harz, 1881c, 5 (syn. *Fasc. eriocis* Mueller).—Kroyer, 1843–45a, 624 *hyatinum* (in *Salmo eriox*).—Nord., 1840, 620 (syn. of *Fasc. eriocis*).—Olfers, 1816, 46.—Stoss., 1886, 50.
- hyans* Moul., 1856a, 49, misprint for *hians*.—Mehlis, 1831, 190.
- hyatinum* Kroyer, 1843–45a, 624 misprint for *hyalinum*.
- hylæ* Rud., 1819a, 121 (in *Hyla arborea*).—Dies., 1850a, 342 (syn. of *D. cygnoides*).
- hystrix* Duj., 1845a, 433 (in *Pleuronectes maximus*, *P. platessa*).—Braun, 1892a, 655; 1893a, 865, 871, 873.—Carus, 1884, 128.—Dies., 1850a, 393 (*histris*); 1858e, 353 (in *Merlangus carbonarius*, *Lepidoleprus trachyrhynchus*; *Lophius piscatorius*; *Rhombus maximus*).—Fil., 1855b, 18, 19.—Gamb., 1896a, 72.—Kroyer, 1838–40a, 610, 612 (in *Platessa vulgaris*; *Rhombus maximus*).—Looss, 1899b, 581, 696 (to *Stephanost.*).—Mol., 1861, 223.—Moul., 1856a, 212 (Filippi believes *Cerc. echinocerca* is the young form), 219 (in *Pleuronectes maximus*; *P. platessa*).—Olss., 1868, 52.—Stoss., 1886, 37.
- hyterophytes* Cobbold, 1883, 401 (for heterophytes).
- [*illotum* Sluiter, 1898 (a tunicate).]
- imbutiforme* Mol., 1859, 839, 844–845 (in *Labrax lupus*; Padua).—Carus, 1884, 127.—Looss, 1899b, 576, 578, 581, 582; 1901, 631.—Mont., 1893, 177.—Stoss., 1883, 115; 1886, 36.
- imitans* Mueh., 1898a, 17–18 (in *Abramis brama*; Kœnigsberg i. Pr.); 1898b, 25, 91, fig. 8b.—Looss, 1899b, to *Asymphyllodora*.
- imparispine* Lint., 1905, 327, 334, 371, figs. 189–194, in *Rachycentron canadus*; N. C.
- incerta* Cobbold, 1885g, 177–178, 1 fig. (in *Coluber*; Maldonado, Rio Plata).—Braun, 1893a, 872.—Stoss., 1895, 230.—West, 1896, 322.
- incistidata* Erc., 1881e, 96, pl. 2, fig. 10, 11, 12; 1882a, 332 (probably *incistidata* simply means incysted and is not used as a specific name).
- incisum* Rud., 1809a, 361, 435 (*D. anarrichæ lupi* Rathke, renamed); 1819a, 94, 122.—Ben., 1870, 48, pl. 4, fig. 5.—Braun, 1893a, 875.—Cobbold, 1860a, 22.—Dies., 1850a, 339.—Duj., 1845a, 461–462.—Jacoby, 1900, 12, 13.—Kroyer, 1838–40a, 380 (in *Anarrichas lupus*).—Linst., 1903, 278.—Odhn., 1905, 310.—Olfers, 1816, 45.—Type of *Fellodist.*, 1904.
- incivile* Leidy, 1856b, 44 (in *Leiostomus obliquus*); 1904a, 87.—Cobbold, 1860a, 20.—Dies., 1858e, 350 (in *Leiost. obliq.*; Philadelphia).—Stoss., 1886, 40; 1895, 231.—Also reported for *Sciæna obliqua*.
- inclusum* Polonio, 1859, see Par., 1894, 149 (in *Triton punctatus*; Padova).
- incommodum* (Leidy, 1856) Leidy, 1891a, 414 (includes *D. oricola* Leidy, 1884); 1904a, 235.—Mont., 1892, 715.
- incomptum* Stoss., 1886, 51, for *incomtum*.
- incomtum* Rud., 1819a, 683 (in *Chaetodon* sp., Brazil).—Cobbold, 1860a 27.—Dies., 1850a, 367.—Duj., 1845a, 459.—Stoss., 1886, 51 (*incomptum*).
- inconstans* Lint., 1905, 327, 334, 400, fig. 183–187, in *Chaetodipterus faber*; N. C.

DISTOMA—Continued.

- incrassatum* Dies., 1850a, 390–391 (in *Lutra solitaria*; Brazil); 1855, 68, pl. 3, figs. 22–25; 1858e, 350 (in *L. sol.*).—Braun, 1901e, 317–318, 328, fig. 5, 8, 9; 1902b, 27.—Cobbold, 1879b, 298.—Mont., 1888a, 14.—Stoss., 1892, 30 (to *Echinost.*).
- increscens* Olss., 1868, 36–37, pl. 4, fig. 83 (in *Scomber*, *Merlucius*, *Hippoglossus*).—Ben., 1870, 37.—Braun, 1892a, 699.—Lint., 1901, 415, 479.—Mont., 1893, 95.—Odhn., 1905, 332 (in *Scomber*), 338 (syn. of *Lepodora rachiaea*, type).—Stoss., 1886, 42, to (*Echinost.*) (in *Hippoglossus maximus*, *Merlucius vulgaris*, *Scomber scombrus*).—Also reported for *Gadus merlangus*, *G. morrhua*.
- inermis* Nitzsch, MS., in Rud., 1819a, 375 (in *Anas boschas fera*) (syn. of *D. oxycephalum*).—Dies., 1850a, 346 (syn. of *D. oxyce.*).
- inermis* Fil., 1857c, pl. 2, fig. 16, for *D. inermis paludinae impuræ*.—Erc., 1881e, 35; 1882a, 271.—Harz, 1881c, 4.
- inermis* Linst., 1879, 183 (in *Petromyzon fluviatilis*).
- inermis paludinae impuræ* Fil., 1857c, pl. 2, fig. 16.—Erc., 1881e, 33; 1882a, 269.
- inflatum* Crep., 1849, 64 (in *Alauda arvensis*).
- inflatum* Mol., 1859, 826 (in *Anguilla vulgaris*; Padua).—Braun, 1892a, 699.—Looss, 1899b, 576, 581, 582; 1901, 634.—Mont., 1888a, 14 (? *Creplin* or ? *Molin*); 1893, 83, 95.—Odhn., 1902, 154.—Olss., 1868, 37.—Par., 1887, 335, pl. 6, fig. 37.—Stoss., 1885, 157; 1886, 42; 1902, 582.
- inflexum* (Rud., 1802) Rud., 1809a, 395–396 (includes *Fasc. jesis* Gmelin), host *Cyprinus jesis*; 1819a, 106.—Cobbold, 1860a, 26.—Crep., 1837, 326.—Dies., 1850a, 365–366 (includes Bloch, 1782a, 11, pl. 2, figs. 10–11; *Fasc. jesis* Gmelin, 1790a, 3058; *F. inflexa* Rud., 1802, 82–83; *D. carinatum* Zed., 1803a, 217).—Duj., 1845a, 463.—Erc., 1881e, 56; 1882a, 292.—Nord., 1832a, 88.—Olfers, 1816, 46.—Stoss., 1886, 51.—Wagener, 1857, 44.—Also reported for *Idus melanotus*.
- ingens* Moniez, 1886b, in 531–543, pl. 15, figs. 1–10 (host unknown); 1887d, 100–102; 1887e, 271; 1887f, 242–243; 1896, 143.—Bl., 1888a, 543; 1891r, 692–693 (syn. of *D. clavatum* Rud.).—Braun, 1889a, 397 (host unknown); 1892a, 586, 690; 1893b, 184.—Buttel-Reepen, 1900a, 585, 586, 587, 588, 590, 591, 592; 1902, 167, 171, 172, 173, 176, 196, 202, 206, pl. 6, fig. 18.—Darr, 1902, 666, 677, 678, 685.—Hoyle, 1890, 540.—Mont., 1888a, 39, 47; 1893, 22, 26, 27, 34, 36, 65, 72, 73.
- innocuum* Bætz of Taylor, 1884, 53 (for *D. hepatitis innocuum*).—Caraes, 1888a, 36ff.—Grall, 1887a, 460.—Ijima, 1899b, 139.—Laspeyres, 1904a, 6, 12 (*innocuum*).—Looss, 1907, Feb. 1, 141, 148 (syn. of *Clonorchis sinensis*).
- innocuum hepatitis* La Clínica de Málaga, 1883, 309 (for *D. hepatitis innocuum*).—St.-Remy, 1883, 529.
- innocuum* Laspeyres, 1904a, 6, 12, for *innocuum*.
- insigne* Dies., 1850a, 347 (in *Echinorhinus spinosus*) (*D. scimna* Risso, 1826, renamed); 1858e, 335.—Ariola, 1899, 7, 9 (syn. of *D. veliporum* Crep.).—Braun, 1892a, 586, 591, 592, 593, 603, 608, 617, 623, 624, 625, 628, 635, 647, 655, 666, 669, 677, 682, 686, 690, 708, 712, 717, 719, 724, 731, 733; 1903a, 873.—Buttel-Reepen, 1902, 170, 171, 202, pl. 6, fig. 23.—Crep., 1851, 1, 296.—Darr, 1902, 683.—Fischer, 1883a, 29.—Jægers., 1900, 72.—Jourdan [1881b], 5, 9.—Kerbert, 1881a, 551, 557, 574.—Lander, 1904a, 7.—Linst., 1903, 354.—Looss, 1885b, 5, 10, 17, 26; 1894a, 152, 198, 199.—Mont., 1893, 27, 33, 34, 52, 77, 95, 102, 107, 192.—Olss., 1896, 508 (cf. *D. veliporum* Crep.).—Poir., 1885, 4, 21, 25, 26, 30, 32, 33, 37, 40, 42, 44, 48, 49, 51, 53, 61, 62, 70, 74, 75, 80, 82, 83, 87, 88, 94, 97, 105, 106, 107, 109, 117, 118, 120, 127, 129, 142, 150, pl. 33.—Villot, 1876, 1345; 1878, 2, 3–18, pl. 5, fig. 8, pl. 6, figs. 1–9, pl. 7, figs. 1–3, pl. 8, figs. 1–10; 1882, 506, 507.—Wolf, 1903, 619.—Ziegler, 1883, 545.
- instabile* Duj., 1845a, 412 (in *Sorex fodiens*; Rennes), to (*Brachylaimus*).—Braun, 1901, 342.—Cobbold, 1860a, 8; 1879b, 296.—Dies., 1850a, 387.—Stoss., 1892, 16 (in *Crossopus fodiens*; Rennes).
- intermedium* Mehlis, in Crep., 1846, 138, 139 (in *Colymbus cristatus*, *C. subcristatus*).—Dies., 1850a, 397.—Stoss., 1892, 183.
- [*intersectus* Lænnec, 1807, 1812c, 9–12 (*Distomus* n. g.), in *Homo*.]
- [*intestinale* Rud., 1819a, 119, see *D. aluconis intestinale*.]
- intestinale* Taylor, see Carter, 1862a, xxxi, in int. of *Homo*: District of Dacca, India.
- intestinalis ardæ nigrae* Viborg, 1795, 242.

DISTOMA—Continued.

intestinalis testudinis mydæ Viborg.—See Rud., 1809a, 433 (syn. of *D. testudinis mydæ* Rud.).

intestinalis vulpis Viborg, 1795, 242.

invaginatum Mayer, 1841a, 17, *D. appendiculatum* renamed.

involutum Rud., 1809a, 377–378 (in *Upupa epops*), includes *Fasc. upupæ* Schrank, 1790, and *D. fusiforme* Zed., 1800a, from *Upupa epops*; 1819a, 101 (July).—Braun, 1901, 561.—Cobbold, 1860a, 13.—Dies., 1850a, 351 (includes *Fasc. upupæ* Schrank, 1790, 123; *D. fusiforme* Zed., 1800a, 171, and 1803a, 210).—Olfers, 1816, 44.—Stoss., 1892, 183.

irroratum Rud., 1819a, 105, 393–394 (in *Testudo mydas*; Arimini, May).—Braun, 1893a, 873; 1893d, 466; 1899b, 715, 717–718, 722; 1901b, 20, 36–38, figs. 27, 30, 32.—Carus, 1884, 129.—Cobbold, 1860a, 20.—Dies., 1850a, 364 (in *Halichelys atra*; Arimini).—Duj., 1845a, 451–452.—Looss, 1899b, 590 (belongs to or is closely related to *Astia* judging from Braun, 1899, 717); 1901l, 558, 559, 560 (ex parte syn. of *Pachypsolus lunatus* Looss, type of genus); 1902m, 485 (to *Pachypsolus*; includes *P. lunatus* (Rud.) Looss, 1901, 558), 486, 487, 493, 494, 496, 497, 499, 503, 504, type of *Pachypsolus*, 505.—Mont., 1892, 715; 1896, 165.—Par., 1894, 147 (in *Thalassochelys caretta*; Rimini).—Stoss., 1895, 231.—Also reported for *Thalassochelys corticata*.

ischnum Leidy, 1890, 415 (in *Saurus foetens*; Beach Haven, N. J.).

isoporum Looss, 1894a, 2, 49–56, pl. 1, figs. 15–18, pl. 5, figs. 102–112 (in *Cyprinus carpio*, *Phoxinus phoxinus*, *Leuciscus rutilus*, *Abramis brama*, *Squalius cephalus*, *Tinca vulgaris*, *Esox lucius*), 58, 59, 97, 124, 127, 136, 137, 140, 144, 153, 154, 157, 159, 162, 167, 179, 191, 192, 208, 209, 212, 214, 215, 218, 231, 251, 264; (includes *Fasc. longicollis* Frølich, e. p.; *D. globiporum* Rud. of Olss.); 1894, 17; 1896b, 46; 1899b, 57c (type of *Creadium*); 1900 (type of *Allocreadium*).—Braun, 1900, 232; 1901b, 33.—Hausmann, 1897b, 4, 6, 17, 20, 22, 27 (in *Barbus fluviatilis*).—Kowal., 1896d, 3 (253) (in *Cyprinus carpio*; Dublany).—Linst., 1903, 281.—Odhn., 1901, 483.—Staff., 1902, 481 (in *Lemotilus bullaris*).—Stoss., 1901, 94 (6).

isoporum armatum MacCallum, 1895, 401–406, figs. 1–4 (in *Aplodermis grunniens*, *Lepomis gibbosus*, *Acceperis rubicundus*; Lake Erie and Grand River of Ontario).—Looss, 1902, 785 (not *Allocreadium isoporum*, but allied to *D. sophiæ*).—Type no. 6856 U. S. Nat. Mus.

isostomum Rud., 1819a, 105, 392–393 (in *Astacus fluviatilis*).—Baer, 1827, 553.—Bettend., 1897a, 29, 30; 1897, 333, 334.—Braun, 1892a, 632, 683, 684, 685, 686.—Cobbold, 1860a, 30.—Crep., 1829b, 64–66; 1837, 310, 325, 326.—Dies., 1850a, 363 (includes Carus, 1818, 51; *D. cirrigerum* Baer?).—Duj., 1845a, 471–472.—Gaffron, 1883a, 508, 509.—Harz, 1881a–b; 1881c, 1.—Haswell, 1887a, 294.—Jackson, 1888, 643–644.—Kampmann, 1894b, 452, 453, 454, 455, 457, 458, 459, 462, pl. 19, figs. 1–5.—Knoch, 1894a, 5, 13, 15, 16, 17.—Linst., 1903, 281.—Looss, 1893b, 809; 1894a, 8, 10, 20, 143, 145, 146, 149.—Mehlis, 1831, column 184.—Mont., 1888a, 47, 48; 1893, 65, 66, 67, 69, 74.—Moul., 1856a, 217.—Mueh., 1898, 14.—Poir., 1885, 147.—Zaddach, 1881, 893.

italicum Stoss., 1893, 135 (6) (in *Lichia amia*; Trieste, Sept.); 1898, 51–52.—Jacoby, 1900, 17.

jacksoni Braun, 1892, 44; 1893d, 466, for *jacksonii*.

jacksonii (Cobbold, 1869) Braun, 1892a, 567, 650, 674, 710, 875, 910; 1892, 44 (*jacksoni*); 1893d, 466.

japonicum Bl., 1888a, 596, 618–621, figs. 320–322 (in *Homo*) (includes *D. hepatitis endemicum* sive *perniciosum*; *D. hepatitis innocuum*), 631; 1891, 607 (syn. of *D. sinense* Cobbold).—Billet, 1893a, 509 (syn. of *D. sinense* Cobbold).—Braun, 1893f, 386, 425; 1903, 3 ed., 161 (syn. of *Opisthorchis sinensis*).—Brunet, 1902a, 125.—Gamb., 1896a, 63.—Huber, 1896a, 577 (syn. of *D. spatulatum* Lkt.).—Katsurada, 1900, 479.—Looss, 1905, 90 (syn. of *Opisth. sin.*).—Simor, 1897, 223.—Sons., 1889, 278 (syn. of *D. endemicum* Bætz).—Ward, 1895, 328 (in *Homo*) (see *D. sinense*); 1903, 870.

kampanulatum Schneidemuehl, 1896, 302, for *campanulatum*.

køllikeri Cobbold, 1860a, 30 (*D. pelagiæ* Kølliker renamed) (in *Argonauta argo*, *Pelagia noctiluca*).—Mont., 1893, 122, 124.

køllikeri Mont., 1893, 122, 124, corrected form of *køllikeri*.

kommutatum Schneidemuehl, 1896, 303, for *commutatum*.

DISTOMA—Continued.

- kongenitum* Schneidemuehl, 1896, 302, for *conjunctum*.
- krassum* Schneidemuehl, 1896, 302, for *D. crassum*.
- kuneatum* Schneidemuehl, 1896, 303, for *D. cuneatum*.
- labiatum* Rud., 1819a, 108, 400 (in *Syngnathus pelagicus*; Naples, July).—Braun, 1893a, 875.—Carus, 1884, 129.—Cobbold, 1860a, 27.—Dies., 1850a, 370.—Duj., 1845a, 468.—Pag., 1862, 305.—Stoss., 1886, 51.
- labii* Linst., 1889, 79, for *labri* Stoss.
- labracis* Duj., 1845a, 398, to (*Dicrocoelium*), (in *Labrax lupus*; Rennes).—Barbagallo & Drago, 1903, 410 (in *Labrax lupus*; Catania).—Ben., 1858a, 1861a, 179; 1870, 24, to (*Echinost.*)—Dies., 1850a, 399.—Fraip., 1880c, 417.—Kroyer, 1838-40a, 578 (in *Lab. lup.*)—Looss, 1901, 399.—Luehe, 1900, 487.—Mol., 1859, 843.—Odhn., 1901, 513, 514.—Stoss., 1898, 46-47 (in *Lab. lup.*; Trieste).—Also reported for *Labrus maculatus*.
- labri* Rud., 1819a, 122 (in *Labrus rupestris*; C. E. V.).—Dies., 1850a, 344 (syn. of *D. fasciatum*).
- labri* Ben., 1870, 45, n. sp. (in *Labrus maculatus*).—Looss, 1901d, 399.
- labri* Stoss., 1886, 30 (in *Labrus mixtus* (nec Rud.)); 1887, 91-92; 1887, 186; 1898, 45.—Linst., 1889, 79 (*labii*).—Odhn., 1901, 493, 494, 495; 1902, 160 (syn. of *Helicometra pulchella*).—Sons., 1891, 257, 258.
- labri rupestris* Olss., 1876, 20-21.—Mont., 1891, 500.—Reported for *Ctenolabrus rupestris*, *Labrus rupestris*.
- lacetæ* Rud., 1819a, 121 (in *Lacerta cærulescens*; C. E. V.).—Dies., 1850a, 355 (syn. of *D. mentulatum*) (in *Lacerta agilis*; Berlin).—Stoss., 1895, 218.—Also reported for *Lacerta viridis*.
- laciniatum* Duj., 1845a, 437 (in *Simia maimon*; Paris), based on Fasc. de Brongniart, Alaire de Brongniart of Blainv., Dict. sc. nat., pl. 41, fig. 3; 1824, 518; atlas, pl. 2, fig. 8; 2. ed., pl. 14, fig. 15; type of Alaire, not *Alaria* Schrank.—Braun, 1893a, 875; 1893d, 467 (in *Cynocephalus maimon*); 1901e, 311.—Cobbold, 1860a, 8; 1879b, 289.—Dies., 1850a, 374 (includes Fasc. maimonis Blainv.—Gurlt, 1845, 224.—Stoss., 1892, 35 (in *Papio mormon*).
- læve* Lint., 1898, 517-518, pl. 43, figs. 5-8, pl. 45, fig. 1 (in *Macrourus bairdii*), type U. S. N. M. 4852; 1901, 415, 418, 481.—Looss, 1899b, 641, to *Hemimurus*.
- lagena* Brand., 1888, 249, 250 (*ascidia* Ben., 1873, nec Rud., 1819, renamed).—Braun, 1900, 388.—Looss, 1899b, 556, 609 (type of *Lecithodendrium*), 618, 715, 716; 1902m, 827; 1907, Mar. 5, 484 (of Looss, 1899b, 715, syn. of *Lecithodend. granulolum*).—Stiles, 1901, 200.
- lagena* (Gmelin, 1790) Rud., 1809a, 366.
- lageniforme* Lint., 1898, 524-525, pl. 47, fig. 12 (in *Remora remora*); 1901, 415, 421, 473.
- lancea* Dies., 1850a, 334 (in *Delphinus tuscus*; bil. duct, Barra do Rio Negro, Brazil); 1855, 64, pl. 2, figs. 17-19; 1858e, 333.—Ben., 1870, 362.—Braun, 1892a, 574; 1893a, 875; 1893, 354; 1900g, 250; 1901e, 314.—Cobbold, 1860a, 6; 1876, 35, pl. 10, fig. 1; 1879b, 416, 417, fig. 67.—Linst., 1886, 125.—Looss, 1902m, 790 (amphitypie).—Mont., 1888a, 8.—Stoss., 1892, 26-27 (in *Orcella brevirostris*; *Delphinus tuscus*; Brazil).—Weski, 1900, 4 May, 579-583, 1 fig.
- lanceatum* (Stiles & Hass., 1896) Looss, 1899b, 556.
- lanceolatum* (Rud., 1803) Mehlis, 1825, 42 pp. [see *lanceatum*].—Aitken, 1866, 804, 839; 1872, 146, 205; 1874, 58.—Anacker, 1892c, 94.—Anders, 1903, 6 ed., 1245 (in man).—Anglas & Ribacourt, 1901, 313-352; 1902, 313-354, 38 figs. (anat. hist.); 1902, Dec. 30, 840-841; 1905, July, 50.—Aragon, 1896, 452.—Armatage, 1895, 429.—Aschoff, 1892, 493-496, pl. 13, fig. 4, case in *Homo*; 1893, Aug. 25, 256.—Askanazy, 1900b, 491.—Baillet, 1866b, 18, 90, 104-105.—Baldi, 1900a, 222-224 (in horse; Milan) [224 *lanceulatum*]; 1900b, 123.—Bet-tend., 1897a, 25.—Biermer, 1863a, 395.—Bilharz, 1856a, 49.—E. Bl., 1847, 292-295, pl. 12, fig. 1.—R. Bl., 1888a, 590, 597, 602 (includes Fasc. hepatica Bloch, 1782; *D. hep. Zed.*, 1800; Rud., 1810; Plan. latiuscula Gœze, 1782), 612 (description, eggs, embryo, sporocysts, redia, cercaria, adult; cases in man [five authentic cases to date reviewed], distribution), figs. 312-313, 615, 623, 631; 1891, 466-467; 1891, 610.—Bolotoff, 1890a, 695-696.—de Bonis, 1882, 172, pl. 2, fig. 13.—Bos, 1894, 245.—Bossuat, 1902, v. 6 (2), 62.—Brand., 1888a, 29; 1890a, 558.—Braun, 1883a, 62, 63-64, 70, 71, figs. 12, 16; 1895b, 11, 65, 144-145, figs. 60-62 (says 7 cases in man); 1892a, 586, 592, 598, 601, 602, 622, 635,

DISTOMA—Continued.

638, 644, 661, 664, 669, 672, 673, 677 (anceolatum), 678, 682, 692, 700, 704, 705, 706, 712, 714, 717, 719, 724, 727, 728, 730, 732, 733, 745, 757, 758, 762, 763, 764, 766, 778, 780, 784, 785, 787, 789, 791; 1893, 347, 348, 349, 350, 351; 1893a, 857, 875, 878, 910; 1893b, 184, 185 (in *Lepus variabilis*, *Anodonta* sp.); 1893f, 384, 385, 386, 389, 390, 424; 1894i, 605, 606; 1899, 3; 1901h, 702; 1903, 3 ed., 157 (of Sieb., 1836, Tright, 1829, not Mehlis, syn. of *Opisthorchis felinus*), 166 (Mehlis, 1825, to *Dicrocoelium*).—Brunet, 1902a, 125.—Buchholz, —, 64.—Bettel-Reepen, 1902, 203.—Caraes, 1888a, 41.—Chatin, 1886b, 244; 1887a, 597.—Cobbold, 1855b, 4; 1864a, 184–191, fig. 39–40; 1866, 6, 7; 1872b, 91, 92; 1876, 210, 211, 303; 1879b, 17–20, 25, 28, 35, 36, 49, 318, 331, 404, figs. 1, 18; 1883, 401.—Cornil & Petit, 1901a, 178.—Cosmovici, 1891, 15 Oct., 247–248.—Crep., 1837, 313, 318, 321, 322, 323, 325, 326; 1839, 288.—Creutzberg, 1890a, 6, 7, 21.—Darr, 1902, 680.—Dav., 1877a, lxxvi, 240–257, figs. 2, 7, 39–40.—Delafield & Prudden, 1897, 130.—Delafield, 1854a, 30.—Dies., 1850a, 333–334; 1858, 58; 1858c, 332; 1859c, 427.—Duffek, 1902a, 774.—Duj., 1845a, 391–392 to (*Dicrocoelium*).—Dunglison, 1893, 338, 820, 1174.—Eiss, 1838, 22.—Erc., 1881e, 69, 90, 91; 1882a, 305, 326, 327.—Fischer, 1840, 158.—Fleming, 1881a, 90, 91.—Florance, 1866a, 5, 22.—Fraip., 1880a, 398; 1880c, 418, 426, 428; 1881b, 39; 1883a, 35.—Friedberger, 1878a, 160; 1880a, 254.—Galli-Valerio, 1893a, 174, 175, 178, 181, pl. 2, figs. 1, 5, 6.—Gamb., 1896a, 63.—Gomy, 1897a, 372, 374.—Grall, 1887a, 469.—Gronkowski, 1902a, 515, 519 (lanceolum), 520, 521, 532 (8, 12–13, 14, 25), pl. 13, figs. 4, 10, 13.—Gunther, 1858, 207.—Gurtl, 1831, 193, 372–373, pl. 8, figs. 37–38.—Hackley, 1886, 518, fig. 881.—Hahn & Lefèvre, 1884a, 529, 537–541.—Harley, 1864a, 62.—Harz, 1881c, 9.—Hoyle, 1890, 538, 540.—Huber, 1896a, 575.—Hutchison, 1895h, 350; 1900i, 497 (in *Duiker antelope*).—Ijima, 1889b, 134.—Jackson, 1888, 649, 653.—Jacoby, 1899a, 134; 1899c; 1900, 5, 9–10, 11, figs. 6–7.—Jamieson, 1897a, 73, 74.—de Jong, 1896a, 1, 9, 10 (of van Tright), 10 (of Sieb.) (in *Felis catus*), 10, 11 (of Mehlis).—Kamensky, 1900a, 5, 6.—Kastenbaum, 1899, 243–248, figs. 33–34.—Katsurada, 1900b, 496.—Kerbert, 1881a, 551, 556.—Kholodk., 1898, 26, 27–28, 32, pl. 9, figs. 1–5; 1899a, 152, fig. 179.—Knoch, 1894a, 18 pp., 2 figs. (topography of excr. and nervous syst.); 1895a, 341; 1895b, 840–845.—Kuech., 1855, 199, 200, 207–210, 481, pl. 5, figs. 11–12.—Kumaya, 1897a, 1–6, egg.—Landois, 1882, 23.—Laspeyres, 1904a, 5, 12 (*Distonum*).—Leidy, 1856b, 43; 1904a, 88.—Lejtenyi, 1881a, 5, 7, 11, 18.—Leuck., 1863a, 457, 460, 463, 464, 465, 468, 470, 479, 480, 483, 484, 486, 487, 490, 522, 526, 575, 576, 588–610, 611, 612, 620, figs. 151, 152, 158, 161, 162, 164, 181, 197–204, 206; 1876, v. 2 (3), 871, 872; 1879, 186, 187, fig. 90; 1886d, 146, 205, 224, fig. 90.—Linst., 1873, 98, 99, 100, 102; 1883, 308.—Lockwood, 1901, 2 ed., 821.—Looss, 1892a, 134; 1894a, 19, 127, 168, 175, 206, 214, 251; 1899b, 632, 633; 1905, 88 (to *Dicrocoelium*).—Macé, 1882a, 8, 9, 12, 21, 29, 60.—Manson, 1901, 540 (supposed intermediate host *Planorbis marginatus*).—Moniez, 1892, 77–79; 1896, 86, 102, 103, 104, 108, 112, 126, 138, fig. 24.—Mont., 1888a, 35, 40, 56, 57, 72; 1891, 110; 1891, 117 (*Distomon*): 1893, 28, 83, 88, 95, 99, 102, 106, 107; 1896, 162.—Mosler & Peiper, 1894, 171, 175–176, figs. 67–68.—Moul., 1856a, 18, 32, 39, 41, 43, 44, 47, 50.—Nicoll, 1906, 521.—Nord., 1832a, 47; 1840, 547, 616.—Packard, —, 522.—Padrone, 1904, 489 (*Distomi lanceolum*).—Pag., 1857, 53.—Perroncito, 1885.—Piana, 1882, —.—Poir., 1886, 29.—Rail., 1890, 143; 1893a, 361 (*felis cati* Sieb., 1836, and van Tright, 1889=D. *felinum*); 1897, 1134.—Rail. & Marotel, 1898, 30, 33, 38.—Ratz, 1898, 67, 68; 1898, 298; 1900, 141.—Raum, 1883, 10.—? Rayer, 1846, 20–23, 4 figs.—Reynes, 1869, 30–36.—Rindfleisch, 1884, 210.—Roewer, 1906, 192, 193, 196, 218.—Schmalz, 1831, 24.—Schneidemuehl, 1896, 300.—Schuberg, —, 88; 1895, 168, 181, 184, 185, 186, 187, pl. 10, figs. 1–7.—Shaw, 1901, 619, fig. 220; 1901, 1027.—Sieb., 1835, 64, 65.—Signal, 1884, 232, fig. 229.—Simon, 1896, 182, 192, fig. 52; 1897, 209, 223, fig. 53.—Sons., 1889, 275; 1893, 215, 216; 1896, 332.—Stewart, 1898, 328.—Stiles, 1898a, 55.—Stoss., 1892, 22–23 (reported for *Antelope dorcas*; *Auchenia lama*; *Capra hircus*; *Bos taurus*, Europa, America sett.; *Cervus elaphus*; *Dama vulgaris*; *Equus asinus*; *Felis domestica*; *Homo sapiens*, Weimar, Kaplitz in Bohemia; *Lepus cuniculus*; *L. timidus*; *L. variabilis*, Briançon; *Ovis aries*, Normandia, America sett.; *Sus scrofa*, America sett.).—Swart, 1862, 35–36.—Tyson, 1903, 3 ed., 1180.—Valentin, —, 147.—Verrill, 1870, 171, 175, 176, 177, 178, 219.—Vogt, 1878, 9, 38, 42, fig. 29.—Wagner, 1883, 121.—Walter, 1858, 268–297, figs.—Ward, 1895, 238–244 (from cat and dog, syn. of *D. felinum*), 328 (in *Homo*; biliary ducts), 332 (in *Bos taurus*; biliary ducts),

DISTOMA—Continued.

- 335 (in *Ovis aries*; biliary ducts), 341 (in *Canis familiaris*) (error for *D. truncatum* and *D. felineum*).—Weichselbaum, 1898, 315.—Will.-Suhm, 1870, 1, 4, 5.—Wolf., 1903, 617.—Wood & Fitz, 1897, 335.—Zschokke, 1892, 500.—Zuern, 1882, 208, 209, 211, 218, pl. 4, figs. 1–4.
- lanceolatum* of Sieb., 1836, 113; 1850, 672–673 (in *Felis catus* dom. at Danzig), and of van Tright, 1889 (in *Canis fam.* at Utrecht), syn. of *D. felineum* = *Opisthorchis felineus*. See Braun, 1893f, 424; 1903, 3 ed., 157.—Rail., 1893a, 361.—Stiles & Hass., 1894e.—Ward, 1895, 243; 1903, 869.—See also Dies., 1850a, 404 (? syn. of *Amphist. truncatum*); 1858e, 332.
- lanceolum* Gronkowski, 1902a, 519 (12) (for *lanceolatum*).
- lanceulatum* Baldi, 1900a, 222–224 (for *lanceolatum*).
- lasium* Leidy, 1891a, 415–416 (in *Ilyanassa obsoleta*; Beach Haven, N. J.).
- laticolle* Rud., 1819a, 117, 421 (in *Caranx trachurus*: Naples, Arimini), to (Echinost.).—Braun, 1892a, 575, 576.—Carus, 1884, 126.—Crep., 1837, 311.—Dies., 1850a, 386.—Duj., 1845a, 432.—Kroyer, 1838–40a, 597 (in *Caranx trachurus*).—Looss, 1899b, 580.—Mont., 1890, 422; 1893, 191, pl. 1, fig. 17.—Stoss., 1886, 35.
- laticolle* Mueh., 1896, 590 (in *Anas glacialis*; East Prussia), not Rud., 1819, see *platyurum*.
- laureatum* Zed., 1800a, 164, 192–194 (in *Salmo trutta*; Europe); 1803a, 219.—Blainv., 1824a, 518, type of “lobostome.”—Braun, 1892a, 735, 736, 784, 785, 786; 1893b, 184; 1900, 231, 232; 1900, 389; 1901b, 31.—Dies., 1850a, 380 (includes *Fasc. farionis* Mueller; *F. truttæ* Frœlich).—Duj., 1845a, 435, to (CROSSODERA).—Kroyer, 1838–40a, 615; 1843–45a, 644; 1846–53a, 54 (in *Thymallus vulgaris* Cuv.: *Salmo trutta* Linn.: *S. fario* Linn.).—Linst., 1903, 279.—Mont., 1893, 85, 86, 94.—Nord., 1840, 621 (to *Fasc.*).—Olfers, 1816, 46.—Olss., 1876, 24; 1893, 12.—Risso, 1826, 262.—Rud., 1809a, 413–414; 1814a, 102; 1819a, 113, 413.—Sieb., 1850, 645.—Stoss., 1886, 18 (in *Coregonus oxyrrhynchus*, *Salmo salvelinus*, *Thymallus vulgaris*, *Trutta fario*, *T. trutta*).—Wagener, 1860, 165.—Also reported for *Coregonus lavaretus*, *Salmo fario*.
- [*laysani* Sluiter, 1900, 9 (a tunicate).]
- [*leachii* Stevens, 1827 (a beetle), *Distomus*.]
- leidy* Cobbold, 1860a, 10 (*Clinost. dubium* renamed).—Stoss., 1892, 181.
- lensis* (Gescheidt, 1833) Dolley, 1894a, 989.
- leptosomum* Crep., 1829, 57–58 (in *Tringa variabilis*); 1831, 177; 1837, 311, 316, 318; 1846, 136.—Braun, 1892a, 650; 1893b, 183 (in *Synapta inhærens*).—Cobbold, 1879b, 438.—Dies., 1850a, 384.—Duj., 1845a, 428.—Mehlis, 1831, column 177.—Mont., 1888a, 14; 1893, 95.—Stoss., 1892, 169 (to Echinost.).—Villot, 1875, 475, 476; 1878, 24–26, 33, pl. 5, figs. 4–6 (in *Tringa variabilis*, *Calidris arenaria*).
- leptosomum* Roewer, 1906, 185, 186, for *leptostomum*.
- leptostomum* Olss., 1876, 18–19, pl. 3, figs. 38–40 (in *Meles taxus*).—Braun, 1892a, 699, 722, 723, 734, 735; 1899g, 492 (to *Harmost.*): 1900h, 5, 6, 11, 12; 1901e, 338, type of *Harmost.*, 341.—Hofmann, 1899a, 174–204, pls. 11–12 (development from *Cercariaeum helices*).—Looss, 1894a, 2, 120, 125, 136, 140, 168, 169, 170, 171, 173, 179, 184, 197, pl. 3, fig. 50, pl. 6, fig. 113; pl. 7, fig. 133 (in *Erinaceus europæus*); 1899b, 556, 652, 746 (type of *Heterolepe*).—Roewer, 1906, 185, 186 (*leptosomum*).—Stoss., 1892, 17 (in *Erin. europ.*, *Me. tax.*) (includes *D. caudatum* Linst.), to (*Brachylaimus*); 1898, 24, syn. of *Mesogonimus linguiformis*.
- leucochloridii* Leuck., 1858a, 115, see *Leucochloridium paradoxum*.
- ligula* Ben., 1870, 1871a, 17 (in *Scymnodon ringens*; Portugal).—Linst., 1903, 354.
- lima* Rud., 1809a, 37, 408, 427–429 (in *Vespertilio auritus*, *V. murinus*; Europe) (includes *Fasc. vespertilionis* Mueller, 1788; ? *Plan. vesp.* Gœze, 1782; *Fasc. picta* Rud., 1802; *D. vesp.* Zed., 1803); 1819a, 117, 119.—Ben., 1873, 25.—Brand., 1888, 249, 250.—Braun, 1892a, 663; 1900, 221, 223, 229, 234, 236; 1900, 388, 389, 390.—Cobbold, 1860a, 7; 1879b, 294.—Crep., 1829, 70–72; 1837, 311, 322, 326.—Dies., 1836, 240; 1850a, 349, 387.—Duj., 1845a, 437–438.—Kolenati, 1857, 11, 12.—Lamouroux, 1824, 563 (*Distome lime*).—Linst., 1885, 248; 1887, 103.—Looss, 1899b, 590; 1907, Mar. 5, 483 (of Ben., 1872, 25, figs. 1–6, 18, possibly belongs to *Parabascus*).—Luehe, 1899, 530, 532 (type of *Plagiorchis*); 1901n, 487.—Mehlis, 1831, 185–186.—Mueh., 1898,

DISTOMA—Continued.

- 29.—Nord., 1840, 616.—Olfers. 1816, 46.—Sieb., 1835, 56, 64, 65.—Staff., 1905, Apr. 11, 693 (syn. of *Plagiorchis vespertilionis* (O. F. Mueller)).—Stoss., 1892, 14 (in *Plecotus auritus*; *Rhinolophus ferrum-equinum* in Vienna and Belgium; *R. hippocrepis*, Belgium; *Vespertilio dasycneme*, Belgium; *V. daubentonii*, Belgium; *V. murinus*, Greifswald, Maestricht; *V. nattereri*, Maestricht; *V. emarginatus*, Belgium; *V. mystacinus*, Maestricht; *Vesperugo discolor*, Vienna; *V. noctula*, Belgium; *Vesperus serotinus*; *Nannugo pipistrellus*, Lauvain; *Molossus rufus*, Brasil; *M. nassatus*); 1904, 2.—Also reported for *Vespertilio discolor*, *V. ferrum-equinum*, *V. nattereri*, *V. noctula*, *Vesperugo pipistrellus*.
- limacis* Dies., 1850a, 302 (to *Heterost.*; *Rhedoni*), based on Duj., 1845a, 472, 473.
- limatum* Braun, 1900f, 389–390 (in *Molossus* sp., from Brazil); 1900b, 233–234, pl. 10, fig. 12.—Looss, 1907, Mar. 5, 488 (probably belongs to *Parabascus*).
- limnææ ovata* Linst., 1885, 251, pl. 15, fig. 28.
- limnæi* Dies., 1850a, 302 (to *Heterost.*), based on Duj., 1845a, 473 (in *Lymnæus palustris*; *Rhedoni*).
- limnophilus* Linst., 1879, 185–186, pl. 12, figs. 32–33 (larva form in larva of *Limnophilus* (?) *rhombicus*; apparently Germany); 1887, 100.—Stoss., 1889, 66, syn. of *D. endolobum*.
- lineare* (Rud., 1793), Zed., 1803a, 219.—Anacker, 1887c, 513.—Baillet, 1866b, 105.—Braun, 1892a, 874; 1901, 561.—Caruccio, 1886, 293.—Cobbold, 1860a, 32 (to *Crossodera*); 1879b, 440.—Dies., 1850a, 379–380.—Duj., 1845a, 444.—Hahn & Lefèvre, 1884a, 516.—Hass., 1896a, 2 (to *Crossodera*).—Landois, 1882, 23.—Magalhães, 1899, 258.—Olfers, 1816, 46.—Rail., 1893a, 368.—Rud., 1809a, 50, 414–415; 1819a, 113–114, 414–415, 685.—Schneidemuehl, 1896, 303.—Sieb., 1835, 52.—Stoss., 1892, 146 (to *Crossodera*).—Verrill, 1870, 179.—Reported for *Anas anser*, *A. boschas* dom.
- lineola* Dies., 1850a, 346 (in *Falco rufus*) (includes *D. falconis rufi* Rud., 1819a, 119; C. E. V.).—Braun, 1901, 561, 565.—Cobbold, 1860a, 12.—Stoss., 1892, 183.—Also reported for *Circus rufus*.
- lingua* Crep., 1825a, 47–48 (in *Larus marinus* v. *maximus*; Dec., apparently Europe); 1837, 310; 1846, 139.—Braun, 1892a, 569, 699, 721.—Cobbold, 1860a, 11.—Dies., 1850a, 343 (*L. argentatus*).—Duj., 1845a, 448.—Jacoby, 1900, 23.—Jægers., 1899a, 16 pp., 1 pl., figs. 1–4; 1901, 982; 1903a, 1, 5.—Kowal., 1896d, 252 (2) (in *Dominicanus marinus*; *Livon.*).—Looss, 1899b, 586 (type of *Tocotrema*).—Luehe, 1899, 539.—Mont., 1893, 94.—Mueh., 1898, 21–22, 29, 94–96, fig. 16 (in *Larus ridibundus*; see *D. mühlengi*; Pillau, Mar.).—Olss., 1876, 15; 1893, 11.—Stoss., 1892, 158; 1896, 129; 1898, 41–42.
- linguæforme* Dies., 1850a, 335 (*Brachylæmus erinacei* Blan. renamed) (in *Erinaceus europæus*; Paris).—Cobbold, 1879b, 295.—Stoss., 1892, 35 (syn. of *D. blanchardii*) (in *Erin. europ.*); 1898, 24, to *Mesogonimus*.
- linguatula* Rud., 1819a, 100 (host not known; Brazil, Aug.), 383 (*Rana* n. sp.; Brazil), 679 (*R. musica*; Brazil).—Cobbold, 1860a, 18.—Dies., 1850a, 353 (in *Cystignathus pachypus*; *Docyodophryna aqua*; *Ceratophrys varia*; Brazil).—Duj., 1845a, 454.—Par., 1896, 11–12 to (*Brachylaimus*).—Stoss., 1889, 70 (in *Cystignathus ocellatus*).—Reported also for *Bufo aqua*.
- linstowi* Mont., 1893, 102, for *linstowii*.
- linstowii* Stoss., 1890, 42–43, pl. 16, figs. 67–69 (*Monost. aculeatum* Linst., from *Testudo græca*, renamed); 1895, 224–225; 1898, 43; 1904, 5.—Braun, 1891d, 424 (in *Testudo græca*); 1892a, 699; 1899, 630, 631, 632; 1901b, 13, 14; 1901i, 58 (*linstowi*).—Linst., 1879, 338.—Looss, 1899b, 566, 567 (type of *Telorchis*, Looss).—Luehe, 1899, 528 to *Telorchis*, but not as type; 1900, 566, type of *Cercorchis*.—Mont., 1892, 715 (*linstowi*); 1893, 83, 85, 86, 102.—Par., 1894, 146.
- lobotes* MacCallum, 1895a, 406–410, figs. 5–7 (in *Anguilla chrysopa*, *Perca flavescens*, *Stegostedion vitreum*) [type U. S. Nat. Mus. 6857].—Type of *Centrovium*, 1904.
- loliginis* (Gmelin, 1790) Zed., 1803a, 222–223.—Baird, 1853a, 115 (= *Tetrabothriorhynchus barbatus*).—Dies., 1850a, 573 (syn. of *Tetrabothriorhynchus migratorius*).—Rud., 1809a, 385.
- longicauda* Rud., 1809a, 372–373 (in *Corvus cornix*); 1819a, 98, renamed *D. macrourum*.—Braun, 1899b, 714; 1901, 561, 562, 565; 1902b, 99 (p. p. of Stoss., 1892, 14, and Mueh., 1896, 248, as syn. of *Lyperosomum albicolle*), 106–109, to

DISTOMA—Continued.

- Lyperosomum*, type.—Dies., 1850a, 345 (syn. of *D. macrourum*).—Jacoby, 1900, 10, 11.—Looss, 1899b, 634 (to *Dicrocoelium*, also *Lyperosomum*).—Mueh., 1896, 248–252, figs. 2, 9; 1896, 589.—Olfers, 1816, 44.—Volz, 1900, 149.—Wolfhüegel, 1900, 9, 20, 21, 23, 24, 25, 26, 27, 28, 29, 31, 35, 36, 41.—Also reported for *Corvus corone*, *C. frugilegus*.
- longicollis* Crep., 1825a, 57–59 (includes *D. embryo* Olfers; in *Perca cernua*, *P. vulgaris*): 1837, 310.—Ben., 1858a, 1861a, 203.—Braun, 1892a, 784, 785.—Dies., 1850a, 365 (in *Acerina vulgaris*; Berlin (syn. of *D. embryo*)).—Duj., 1845a, 455.—Leblond, 1835c, 103 (in *Muræna conger* Linn.): 1836f, 4.—Moul., 1856a, 48, 219 (in *Perca cernua*, *P. fluviatilis*).—Vaulleuard, 1899, 82.—Wagener, 1857, 26.
- longicollis* Frœlich, 1791 Harz, 1881c, 5, 11.
- longicollis* Crep., 1846, 154, 155 (in *Cottus gobio*).—Sieb., 1848, 142 (in *Cottus gobio*).
- longicollis* (Abildg., 1788) Cobbold, 1860a, 18–19 (in *Tropidonotus naja*).
- longissimum* Linst., 1883, 308–309, pl. 9, fig. 50 (in *Ardea stellaris*; Turkestan); 1886, 32.—Braun, 1892a, 567, 699, 711, 722; 1893a, 875; 1893, 353; 1893f, 426; 1894i, 602, 605; 1899, 4.—Looss, 1896b, 58.—Mont., 1893, 83, 95, 102.—Stiles & Hass., 1894e, 418; 1896c, 151–155, figs.—Stoss., 1892, 161 (*Botaurus stellaris*); 1904, 12.
- longissimum* Poir., 1886, 29–30, pl. 1, fig. 6 (in *Delphinus tursio*).—Braun, 1892a, 699.—Mont., 1893, 41.—Par., 1896, 1–3 (= *D. tursionis* Marchi).—Stoss., 1892, 25–26 (in *Delph. tur.*).
- longissimum corvinum* Stiles & Hass., 1894e, 418 (in *Corvus americanus*, *C. ossifragus*): 1896c, 151–155, figs.—Looss, 1899b, 564, to *Opisthorchis*.
- longissimum corvinum* Stiles & Hass., 1896c, 155, misprint for *corvinum*.
- longum* Leidy, 1851, v. 5, 206, v. 8, 44, 340 (in *Esox estor*; Cleveland, Ohio).—Braun, 1893a, 872.—Cobbold, 1860a, 24; 1879b, 458.—Dies., 1855, 64, footnote 13; 1858, 340.—Stoss., 1886, 52.—Wolf, 1903, 605, fig. 1.—Type of *Megadistomum* 1904.—Also reported for *Esox reticulatus*.
- lorum* Duj., 1845a, 407 (? syn. *Monost. ocreatum*) (in *Talpa europæa*; Rennes), to (*Brachylaimus*).—Braun, 1892a, 567, 579, 597, 642, 662, 663, 671, 699, 700, 705, 723, 737; 1893a, 893; 1900, 13; 1900h, 6; 1901, 897; 1902b, 135, syn. of *Ityogonimus ocreatus*.—Dies., 1850a, 326 (syn. of *Monost. ocreatum*).—Kuehn., 1855, 181.—Looss, 1899b, 653 (type of *Dolichosomum*); 1900, 608 (type of *Dolichodemast*); 1901m, 192.—Luehe, 1899, 538, syn. of *D. ocreatum* Zed., which is taken as type of *Ityogonimus*.—Melnikow, 1865a, 49–55, pl. 3, figs. a–b.—Mont., 1892, 41; 1893, 155.—Stoss., 1892, 17–18 (includes *Monost. ocreatum*; *M. acreatum*) (in *Talpa europæa*, Vienna, Offenbach, Rennes, Denmark).—Volz, 1899, 232.—Will.-Suhm, 1870, 12.
- loxia* Rud., 1819a, 120 (in *Loxia chloris*; *L. coccothraustes*; *L. pyrrhula*; *C. E. V. l.*)—Duj., 1845a, 443.—Stoss., 1892, 149 (syn. of *D. mesostomum*).
- lucii* Rud., 1819a, 122 (in *Esox lucius*; Greifswald, Jan.) for *D. esocis lucii* Rud., 1809a, 438.—Dies., 1850a, 399.
- lucii* (Mueller, 1776) Zed., 1800a, xvii, 163, 173–175; 1803a, 213, pl. 3, fig. 3.—Ben., 1858a, 1861a, 100 (syn. of *D. tereticolle*).—Dies., 1850a, 358 (*lucii*, syn. of *D. teret.*).—Harz, 1881c, 5 (syn. *D. teret.* Rud.).—Looss, 1894a, 5 (syn. of *D. teret.*).—Rud., 1809a, 380 (syn. of *D. teret.*).—Schmalz, 1831, 25.—Sramek, 1901, 105 (syn. of *D. teret.*).
- luciopecae* (Mueller, 1776) Zed., 1803a, 216.—Dies., 1850a, 381 (syn. of *D. nodulosum*).—Rud., 1809a, 411, 412 (syn. of *D. nod.*).—Sramek, 1901, 106 (syn. of *D. nod.* Zed.).
- lucipetum* Rud., 1819a, 94, 367 (in *Larus glaucus*, *L. fuscus*; Mus. Vien.).—Braun, 1893a, 877; 1893d, 468; 1897c, 2–3; 1901, 561, 565–566; 1902b, 31 (to *Philophthalmus*), 32 (includes Bremser, 1824, pl. 9, figs. 1–2; Rud., 1819a, 94, 367; Duj., 1845a, 400; Braun, 1897, 2; 1901, 565; Dies., 1850a, 338; Stoss., 1892, 15, 37).—Cobbold, 1860a, 11.—Crep., 1837, 317.—Dies., 1850a, 338.—Duj., 1845a, 400–401, to (*Dicrocoelium*).—Looss, 1899b, 701 (to *Philophthalmus*).—Mol., 1859, 844.—Moul., 1856a, 50.—Nord., 1832a, 17.—Stoss., 1892, 157.
- lutea* Ben., 1870, 3, pl. 4, fig. 9 (in *Scyllium canicula*); 1878, 28.—Ariola, 1899, 8 (syn. of *D. betencourti*).—Braun, 1892a, 700, 705, 720, 721, 736.—Jacoby, 1900, 11.—Linst., 1903, 354 (syn. of *D. betencourti*).—Looss, 1902, 129.—Mont., 1890, 424.—Stoss., 1886, 52 (in *Sc. can.*, *Mugil chelo*).

DISTOMA—Continued.

- luteum* Baer, 1826a, 125 (*Paludina vivipara*); 1827, 610–611, pl. 29, figs. 20–22.—Braun, 1892a, 632.—Crep., 1837, 310, 325, 326.—Dies., 1850a, 302 (renamed *Heterost. ovatum*); 1858d, 279, 280 (of *La Valette* and Wagener, syn. of *Cercariaeum ovatum*) (in *Esox lucius*) “Wagener: n. sp.”—Erc., 1881e, 45, 46, pl. 2, fig. 8; 1882a, 281, 282.—Fil., 1854a, 25.—Fraip., 1880c, 445, 446.—Gamb., 1896a, 62, fig. 30.—Leuck., 1863a, 466, figs. 149, 154, 155; 1879, 10, fig. 1 (of *La Valette*); 1886d, 6 (of *La Valette*), fig. 1.—Mont., 1893, 60, 82, 190 (syns. *Heterost. ovatum* Dies.; *Dist. luteum* *La Valette*, 1854, 86, Wagener, 1853, 103, Pag., 1857, 34; *Cercariaeum ovatum* Dies., 1858, 279; *Dist. ovatum* Cobbold, 1860a, 30), 191 (of Ben., 1870, 3; Stoss., 1886, 52; Mont., 1890, 432, renamed *betencourti*).—Moul., 1856a, 213, 215 (*Heterost. ovatum* Dies. as syn.), 216 (in *Paludina vivipara*), 229, 230.—Mueh., 1898, 11.—Pag., 1854, pl. 3, fig. 15, in *Paludina vivipara*; 1857, 6, 34, pl. 3, fig. 13 (in *Paludina vivipara*).—Sons., 1897, 252.—Wagener, 1857, pl. 23, fig. 3 (in liver of *Paludina vivipara* and in int. of a Hecht, at Nice).
- luzii* Dies., 1850a, 358, misprint for *lucii* (Mueller) Zed. (syn. of *D. tereticolle*).
- lydiæ* (Stoss., 1896) Looss, 1899b, 581 (to *Stephanost.*).—Type of *Dihemistephanus*, 1901.
- lymnæi auricularis* Fil., 1854, 25–26, 30, pl. 2, fig. 32 (in *Lymnæus auricularis*); 1854, 280–282, pl. 2, fig. 32; 1855b, 23.—Dies., 1855a, 398 (to *Cercariaeum*).—Wagener, 1857, pl. 36.
- lymphaticum* Linst., 1903t, 353–354, figs. 3–4 (in *Mustelus vulgaris*).—Odhn., 1906, 64 (syn. of *D. megastomum*).
- macconnelli* Cobbold, 1876, 97, *D. sinense* renamed.
- macrobothrium* Ben., 1870, 70, pl. 4, fig. 1 (in *Osmerus eperlanus*).—Stoss., 1886, 52.
- macrocotyle* Dies., 1858e, 342 (in *Orthogoriscus mola*, intestine; Ireland), based on Bellingham, 1844a, 429.—Braun, 1892a, 569; 1893a, 873, 910; 1901b, 27.—Linst., 1898, 522, 523, pl. 45, figs. 8–10, pl. 46, 1–5; 1900, 282; 1901b, 415 (in *Mola mola*, *Myliobatis freminvillei*), 421, 434, 466.—Looss, 1894a, 165; 1899b, 631; 1900, 487.—Mont., 1893, 23, 27, 29, 30, 32, 40, 47, 80, 81, 83, 93, 94, 95, 96, 102, 108, 113, 115, 119, 126, 127, 128, 132, 133, 134, 135 (= *D. megninii*), 136, 137, pl. 1, fig. 7, pl. 3, fig. 27, pl. 4, figs. 43–47; 1903, 10.—Olss., 1868, 24.—Par., 1902, 6 (in *Lophius piscatorius*, *Orthogoriscus mola*; Tonnara d’Enfola).—Sons., 1891, 258 (in *Lophius piscatorius*).—Stoss., 1886, 20; 1887, 185; 1896, 190, to (*Podocotyle*); 1898, 52.
- macrolaimus* Linst., 1894b, 334–335, fig. 9 (in *Vesperugo pipistrellus*).—Braun, 1900, 227–228; 1900, 388.—Looss, 1899b, 618, to *Lecithodendrium*; 1902m, 774.—Luehe, 1899, 536.
- macrophallus* Linst., 1875a, 190–192, pl. 2, figs. 12–13 (in *Totanus hypoleucos*); 1877, 183; 1887, 104 (*macrophallus*).—Braun, 1892a, 585, 736, 737; 1893a, 838, 839, 849; 1900, 234; 1902b, 50, 155.—Jägers., 1900, 738, to (*Levinsenia*).—Looss, 1894a, 135; 1899b, 620; 1902m, 704.—Luehe, 1899, 537.—Nicoll, 1906, 524.—Odhn., 1900, 13; 1905, 317.—Stiles & Hass., 1902d, 20.—Stoss., 1892, 147 (in *Actitis hypoleucos* at Ratzeburg, *Totanus fuscus* at Hameln).—Ward, 1901, 184.
- macrophallus* Linst., 1887, 104.
- macropoculum* Cobbold, 1860a, 25 (in *Orthogoriscus mola*) (new name for *D. macrocotyle* Dies.; *D. orthogorisci mola* Bellingham).—Mont., 1893, 127.
- macroporum* Mont., 1893, 133–138, pl. 4, figs. 48–49 (in *Lophius piscatorius*).—Stoss., 1898, 52 (syn. *D. macrocotyle* Stoss.) (in *L. pisc.*; Trieste).
- macrostomum* (Rud., 1803) Rud., 1809a, 382, 383, 386–387, 393 (in *Motacilla lusciniæ*); 1819a, 104.—Bavay, 1902a, 200.—Bettend., 1897a, 7, 15, 39; 1897, 311, 319, 343.—Brenser, 1824, 133.—Braun, 1883a, 56; 1891c, 215, 219; 1892a, 593, 597, 598, 603, 607, 608, 638, 640, 641, 642, 675, 676, 677, 682, 684, 685, 687, 693, 700, 701, 703, 712, 713, 718, 736, 773, 775, 777, 778, 779, 780, 784, 785, 798, 801, 803, 806, 807, 808, 814; 1893a, 818, 819, 820, 823, 824, 825, 829, 830, 831, 841, 855, 856, 860, 862, 863, 865, 868, 874, 879; 1893b, 177; 1895b, 134, 135; 1901, 561, 566, 568; 1902b, 42, 43 (coll. Vienna, 469, from *Parus major*, as syn. of *Plagiorchis elegans*), 137.—Cobbold, 1860a, 14; 1879b, 436.—Creutzberg, 1890a, 11.—Dies., 1850a, 361 (includes *D. erraticum* et *philomela* Rud., 1819a, 120; *D. ringens* Rud., 1819a, 101, 385).—Duj., 1845a, 443.—Gamb., 1896a, 62, 64–67, 72, figs. 32, 33.—Heckert, 1887a, 456ff; 1889a, 66 pp., 4 pls., monograph,

DISTOMA—Continued.

- life history, *Leucochloridium*; 1889b, 357-362; 1890a, 42-43; 1891a, 189; 1892a, 189.—Hoyle, 1890, 540, fig. 4 A. B. (has remarkable larva known as *Leucochloridium paradoxum*).—Jackson, 1888, 648 (rep. system), 651 (= *Leucochloridium* Kowal., 1896i, 353 (9), to (*Urogonimus*); 1896d, (4), 254 (in *Turtur aurita*; Dublany).—Leuck., 1879, 95; 1886d, 72.—Looss, 1892, 101, 116, 122, 159; 1894a, 151, 179, 181, 202, 206, 236, 240, 252, 262; 1896b, 139, 140; 1899b, 536, 646, 647.—Mont., 1888a, 92; 1892, Oct. 7, 187; 1892, 713; 1893, 157.—Mueh., 1898, 101.—Nicoll, 1906, 521.—Olfers, 1816, 44.—Stiles, 1901, 194.—Stoss., 1892, 183; 1898, 23.—Westhoff, 1890, 337-339.—Wolf, 1903, 617, 618.—Wolffhuegel, 1900, 9, 24, 40, 41, 43, 44.—Also reported for *Aegithalus pendulinus*, *Apertnus tridactylus*, *Budytes flavus*, *Corvus corone*, *Dryocopus martius*, *Garrulus glandarius*, *Picus major*, *Succinea putris*).
- macrostomum* Schlotthauber, 1860, 130 (in *Petromyzon fluviatilis*).
- macrourum* Rud., 1819a, 98 (in *Corvus cornix*). *D. longicauda*, 1809, renamed.—Baird, 1853a, 50, includes *D. clathratum* Deslongchamps and *D. albicolle* Rud.—Braun, 1891, 101; 1892a, 764 (*macrurum*); 1893a, 875; 1901, 561, 562, 565; 1902b, 99 (pp. of Stoss., 1892, 13, syn. of *Dicrocoelium albicolle*), 106 (syn. of *Lyperosomum longicauda*), 107 (includes Dies., 1850a, 345; Linst., 1883, 309; 1886, v. 2, p. 34; Rud., 1819a, 98; Stoss., 1892, 13 pp.).—Cobbold, 1860a, 11.—Crep., 1837, 324; 1846, 132.—Dies., 1850a, 345 (in *Corvus cornix*, *Anthus arboreus*, *Turdus merula*; Rhedoni) (includes *D. attenuatum* Duj.?).—Linst., 1883, 309-310; 1886, 34.—Nord., 1832a, 93.—Rail, 1900, 240.—Stoss., 1892, 156.—Also reported for *Alauda arborea*, *Aquila pennata*, *Cypselus apus*.
- macrurum* Braun, 1892a, 764 (for *macrourum*).
- maculatum* Looss, 1901d, 402-404, fig. 3 (in *Labrus merula*, *Crenilabrus pavo*, *C. griseus*; Triest).
- maculosum* (Rud., 1802) Rud., 1809a, 374-375 (in *Hirundo apus*; *H. rustica*; *H. urbica*) (includes *Fasc. hirundinis* Frœlich, *D. hirundinum*); 1814a, 101; 1819a, 100, 382-383.—Baird, 1853a, 52.—Braun, 1892a, 642; 1901, 561, 566; 1902b, 37, 46, 47, 48, 49 (includes Dies., 1850a, 349, 412; Olss., 1876, 14; Stoss., 1892, 11) (to *Plagiorchis*).—Cobbold, 1860a, 13.—Dies., 1850a, 349 (includes *D. hirundinum* Zed.; *Fasc. hirundinis* Frœlich); 1858d, 260 (larva = *Cerc. (Acanthocephala) virgula*); 1858e, 337 (adult in *Cypselus apus*, *Hirundo riparia*, *H. rustica*, *H. urbica*, *Caprimulgus europæus*; larva in *Valvata piscinalis*; *Paludina impura*).—Duj., 1845a, 412-413.—Erc., 1881e, 23; 1882a, 259.—Fil., 1855b, S. 9.—Giebel, 1857, 266.—Harz, 1881c, 4, 7.—Kowal., 1896d, (3), 253 (in *Hirundo rustica*).—Linst., 1901, 195-197, pl. 9, fig. 24.—Looss, 1899b, 557.—Luehe, 1899, 532.—Moul., 1856a, 43 (des *Hirondelles*), 152, 163.—Mont., 1893, 95.—Olfers, 1816, 44.—Olss., 1876, 14.—Pag., 1857, 53.—Par., 1896, 2.—Stoss., 1892, 13.—Walter, 1892, 250.—Wolffhuegel, 1900, 9, 18.—Also reported for *Chelidon rustica*, *C. urbica*, *Cotyle riparia*, *Drusus trifidus* McLach.
- magnum* Bassi, 1875b, 497-515, pls. 1-3, figs. 1-10, 1-7, 1-3 [in Hirsch; *Mandria*].—Braun, 1893a, 875, 877, 882, 910; 1897a, 1468.—Curtice, 1887, Nov., 390-392.—Dinwiddie, 1892, 4.—Erc., 1881e, 90; 1882a, 326.—Francis, 1894, 450.—Gamb., 1896a, 4, 68.—Huber, 1896a, 576.—Leuck., 1982b, 797-799; 1893c, 435-436.—Looss, 1899b, 556.—Par., 1894, 50.—Sons., 1889, 275 (to *Fasc.*).—Stiles, 1892e, 148; 1892g, 1892m, 464-466; 1894c; 1898a, 49.—Stoss., 1892, 9 (syn. of *Cladocœlium giganteum*).—Ward, 1895, 253 (to *Fasc.*), 332 (in *Bos taurus*), 338 (in *Equus caballus*); 1903, 866 (to *Fasc.*).
- marculentum* Braun, 1901g, 948 (in *Emberiza citronella*; *Vien. Mus. no. 620*); 1902b, 148-150, fig. 91.
- margaritarum* Dubois, 1901, 603-605 (in *Mytilus edulis*); 1901, 149-150.—Seurat, 1901, 700-702.
- marginatum* Rud., 1819a, 680 (in *Ardea* sp.; Brazil, May).—Braun, 1892a, 578, 663, 734; 1899g, 485, 486, 490, to *Clinost.*; 1900h, 18, 25, 26, 27, 28, 29, 30, 45; 1900, 141; 1901, 561.—Dies., 1850a, 354 (syn. of *D. dimorphum*).—Duj., 1845a, 446.—Looss, 1899b, 650.—Mont., 1893, 155.—Stoss., 1892, 175 (to *Mesogonimus*).—Wagener, 1852, 555-557.
- marginatum* Mol., 1858, 128-129 (in *Anas crecca*; Batavii); 1861, 198-199, pl. 1, figs. 13-14.—Cobbold, 1860a, 10.—Dies., 1858e, 333 (in *A. cr.*; Patavii).—Stoss., 1892, 149.
- m'connelli* McConnell, 1878a, 406, for *macconnelli*.

DISTOMA—Continued.

- medians* Olss., 1876, 25–26, pl. 4, figs. 59–63 (in *Bufo vulgaris*).—Braun, 1892a, 583, 642, 721, 736, 737.—Looss, 1893b, 811; 1894a, 2, 82, 83, 84, 91 (e. p., syn. of *D. clavigerum*), 92, 95, 96, 99, 105–108, 119, 126, 137, 158, 159, 167, 173, 181, 182, 191, 192, 197, 210, 211, 212, 214, 219, 221, 230, 256, 264, 273, pl. 2, figs. 36–38, pl. 8, figs. 168, 169; pl. 9, figs. 187–188 (in *Bufo calamita*; *B. variabilis*; *B. vulgaris*; *Rana esculenta*; *R. temporaria*); 1894, 5, 50; 1896b, 91, 94, 96; 1898, 461; 1899b, 616, 622, 623 (to *Pleurogenes*).—Luehe, 1900, 558; 1901, 169.—Mont., 1893, 86, 95, 102; 1896, 151, 152.—Mueh., 1898, 23.—Nickerson, 1900, 813, 814.—Staff., 1900, 412, 414; 1902, 724.—Stoss., 1889, 70.
- medians* Olss. of Staff., 1900, Aug. 30, 412.—Staff., 1905, Apr. 11, 683=*D. arcanum* Nickerson, 1900, Oct., to *Loxogenes* as type.
- megacotyle* Dies., 1850a, 379 (negacotyle), 659, *D. velellæ* Fil., renamed (in *Velella spirans*; Naples) (negacotyle).—Cobbold, 1860a, 30.—Linst., 1904a, 14 (in *Stenodus nelma*; Siberia).—Mont., 1893, 123.—Moul., 1856a, 217 (in *Vel. sp.*).
- megalocotyle* Mont., 1893, 52, 53, pl. 8, fig. 124.—Linst., 1903, 354 (megatocyle, misprint).
- megaloon* Linst., 1879, 337–338 (in *Lacerta agilis*).—Stoss., 1895, 231 (in *L. ag.*).
- megastomum* Rud., 1819a, 102, 387 (in *Squalus galeus*; Arimini, May).—Ariola, 1899, 7 (includes *D. soccus* Mol.).—Ben., 1858a, 1861a, 170; 1870, 6, pl. 4, fig. 7; 1870, 7.—Braun, 1892a, 647, 679, 701, 702, 728, 734, 738, 761, 784, 786, 873; 1893b, 176.—Bremser, 1824, 133.—Carus, 1884, 129.—Cobbold, 1860a, 24; 1872b, 91; 1879b, 49, 299.—Crep., 1837, 310, 326.—Crety, 1892, 21–24, fig. 1; 1892c, 399; 1892, (92–97); 1893a, 380–382, 383.—Darr, 1902, 667.—Dies., 1850a, 357 (includes Rud., 1819a, 102, 387; Eisenhardt, 145; Bremser, 1824c, pl. 9, figs. 5–8; Kuhn, 1829, 463, pl. 11, figs. 4–5; Duj., 1845a, 471); 1858, 339 (in *Scyllium catulus*).—Duj., 1845a, 471.—Eisenhardt, —.—Jacoby, 1899c, 1900, 16–24, figs. 13–16.—Jægers., 1900b, 68–74, figs. 1–4 (copulatory organs).—Kowal., 1895g, 20 (60).—Kroyer, 1852–53a, 851 (in *Galeus vulgaris*).—Kuhn, 1829, 463.—Looss, 1894a, 128; 1899b, 570 (thinks that this form may belong to *Azygia*); 1902m, 829, 830 (type of *Ptychogonimus*).—Linst., 1903, 354.—Luehe, 1900, 490.—Mont., 1888a, 64, 72; 1890, 426; 1892, Oct. 7, 189; 1893, 6, 7, 33, 34, 35, 53, 71, 77, 78, 79, 82, 95, 102, 192, 193, pl. 1, fig. 2, pl. 7, figs. 105–109, pl. 8, figs. 115, 116, 133–135.—Odhn., 1906, 64 (includes *D. lymphaticum* Linst.).—Orley, 1885, 218.—Stoss., 1886, 23; 1890, 43; 1898, 38.—Villot, 1878, 2, 9, 11, 13 (in *Carcharias*; *Scyllium catulus*; *Galeus canis*).—Wagener, 1860, 167.—Wedl, 155, 383, pl. 2a, fig. 16.—Will.-Suhm, 1870, 5–7; 1871, 179–181, pl. 11, figs. 4–5.—Also reported for *Squalus mustelus*, *Mustelus vulgaris*.
- megastomum* Grobben, 1878a, 89 (in *Portunus depurator*).
- megastomum leporis* Kuhn, 1829c; 1830a; 1830b.—Stiles & Hass., 1905a, 941.
- megatocyle* Linst., 1903, 354, for megacotyle.
- megnini* Poir., 1885, 4, 5, 14–15, 22, 25, 31, 32, 33, 39, 41, 45, 49, 51, 54, 64, 65, 66, 70, 76, 88, 94, 109, 112, 116, 117, 118, 120, 129, 130, 133, 144, 150, pl. 23, fig. 8, pl. 29, fig. 2, pl. 31, figs. 5–7, pl. 34 (in a fish).—Braun, 1892a, 569, 597, 603, 608, 623, 624, 625, 631, 666, 671, 673, 674, 677, 690, 712, 717, 724, 731, 733.—Buttel-Reepen, 1900a, 590; 1902, 184, 192, 202.—Darr, 1902, 683, 687, 693.—Jackson, 1888, 644.—Lander, 1904a, 7.—Looss, 1894a, 145 (megninii).—Mont., 1893 (megninii), 23, 27, 29, 30, 32, 33, 34, 36, 37, 40, 47, 48, 64, 80, 81, 93, 94, 95, 104, 113, 119, 125, 126, 127, 134, 135 (megninii), 102, 106, 107; 1896, 154 (megninii).—Wolf, 1903, 619, 621.
- megninii* Mont., 1893, 102, for megnini.
- melis* (Gœze, 1782) Zed., 1800a, 164, 194–196.—Dies., 1850a, 382 (syn. of *D. trigonocephalum*).—Rud., 1809a, 415 (syn. of *D. trig.*).
- mentolatum* Mueh., 1898, 19, for mentulatum.
- mentulatum* Rud., 1819a, 103, 388–389, 681 (in *Coluber natrix*, *Lacerta agilis*, *L. maculata*; Berlin, Arimini, Apr. and July).—Braun, 1891, 99; 1892a, 766, 780, 784, 785; 1901b, 15.—Cobbold, 1860a, 19.—Dies., 1850a, 355 (includes *D. colubri natrix* intestinal Rud., *D. colubri tessellati* Rud.; *D. lacertæ* Rud.); 1858e, 339 (in *Tropidonotus natrix*).—Duj., 1845a, 415, to (*Brachylaimus*).—Erc., 1881e, 73, 74, 75, 76, 77, 78, 79, 82, 89 (in *Tropidonotus natrix*); 1882a, 309, 310, 311, 312, 313, 314, 315, 318, 325.—Holstein-Beck.—Jackson, 1888, 650 (rep. system).—Kampmann, 1894b, 451, 454, 456, 457, 462, pl. 20, figs. 6–9.—Linst., 1879, 184.—Looss, 1899b (=Lepoderma).—Luehe, 1899,

DISTOMA—Continued.

- 529 (of Erc., syn. of *D. nematoides*), 530; 1901, 487.—Mol., 1859, 831, 837–838 (in *Lacerta agilis*, Berlin; *Podarcis merremii*, Arimini; *P. muralis*, Padua; *Tropidonotus natrix*, Berlin; *T. tessellatus*).—Mont., 1893, 187.—Mueh., 1898, v. 1 (1), 10, 19 (mentolatum), 29, 92–93, fig. 13.—Par., 1894, 147, to (*Brachylaimus*) (in *Lacerta merremii*; Rimini).—Schauinsland, 1882, 496.—Sons., 1893, 186.—Stoss., 1889, 61; 1895, 217–218; 1898, 33–34; 1904, 2.—Volz, 1899, 235, 236, 238.—Wedl, 1855, 401–409, pl. 2 b, fig. 9.—Reported for *Lacerta muralis*, *L. viridis*, *L. vivipara*, *Rana temporaria*.
- mentulatum* Rud., of Erc., according to Luehe, 1899, 529, is *D. nematoides*.
- mergi* Rud., 1819a, 121 (in *Mergus albellus*; C. E. V.).—Dies., 1850a, 391 (renamed *D. baculus*).
- merlangi carbonarii* Dies., 1858e, 341, renamed *D. anonymum*, based on Bellingham 1844a, 428.
- merlangi vulgaris* Dies., 1858e, 341, renamed *D. anonymum*, based on Bellingham, 1844a, 428.
- merlangorum* Dies., 1855, 64 footnote 15, based on Bellingham, 1844a.
- meropis* Rud., 1819a, 120 (in *Merops apiaster*; C. E. V.).—Braun, 1901, 568; 1902b, 51, 52, 54 (includes Par., 1896, 5, as syn. of *Plagiorchis triangularis*).—Dies., 1850a, 351 (renamed *D. triangulare*).—Duj., 1845a, 444.—Looss, 1899b, 531, 532, 725.—Par., 1896, 5–7 to (*Brachylaimus*), fig. 2a.—Stiles, 1901, 172.—Stoss., 1892, 186.
- mesosternum* Linst., 1873, 101, see *mesostomum*.
- mesostomum* (Rud., 1803) Rud., 1809a, 387–388 (in *Turdus iliacus*); 1819a, 104.—Braun, 1901, 561, 566–567; 1902b, 116, 117, 126–129, fig. 76 (includes Dies., 1850a, 361; Stoss., 1890, 5; 1896, 128; 1892, 7; 1898, 33).—Cobbold, 1860a, 14.—Dies., 1850a, 361 (includes *D. turdi*) (in *Turdus iliacus*; Greifswald; *Pyrrhula vulgaris*, *Fringilla coccothraustes*, *C. chloris*).—Linst., 1873, 101 (mesosternum).—Mueh., 1898, 16.—Olfers, 1816, 44.—Stoss., 1890, 43; 1892; 149 (*D. loxiae*, 1819); 1896, 128; 1898, 33.—Wolffhugel, 1900, 9, 45, 46.—Also reported for *Coccothraustes vulgaris*, *Columba livia*, *Merula vulgaris*.
- metacis* Braun, 1900f, 389 (in *Vespertilio lasiopterus*; *V. noctua*; Vien. Mus.); 1901b, 31.
- micracanthum* Stoss., 1889, 29, pl. 14, fig. 58 (in *Pagellus erythrinus*; Trieste); 1898, 48.—Barbagallo & Drago, 1903, 410, to (*Dicrocoelium*) (in *Pagellus erythrinus*; Catania).—Braun, 1892a, 583, 720.—Mont., 1893, 86, 95, 102.
- microcephalum* Baird, 1853a, 58, pl. 2, fig. 2 (in *Acanthias vulgaris*; Falmouth Harbor); 1853, 22; 1855, 73–74.—Ariola, 1899, 7 (syn. of *D. veliporum* Crep.).—Braun, 1893a, 873.—Cobbold, 1860a, 24; 1886, 52.—Dies., 1855, 64; 1858e, 335 (in *Acan. vulg.*).—Linst., 1903, 354 (syn. of *D. veliporum*).—Lopez, 1888a, 137.—Mont., 1888a (microcephalum); 1889, 132–134; 1889, 322 (= *D. veliporum* Crep.); 1893, 52.—Stoss., 1886, 52.
- microcephalum* Crep., 1837, 311; 1849, 64 (in *Corvus cornix*).
- micrococcum* Rud., 1819a, 101, 383–384 (in *Glareola austriaca*; Arimini, April).—Braun, 1901, 561, 564, 567; 1902b, 41, 49, 62 to *Phaneropsolus*, 63, 64 (thinks identical with *Phaneropsolus sigmoides*), 155.—Cobbold, 1860a, 13.—Dies., 1850a, 351.—Duj., 1845a, 447.—Linst., 1887, 104.—Looss, 1902m, 823.—Stoss., 1892, 150.
- microcotyle* Dies., 1858e, 340 (*D. pleuronectis maximi* Bellingham, 1844a, 428) (in *Rhombus maximus*; Hibernia).—Cobbold, 1860a, 25.—Stoss., 1886, 52.
- micropharyngeum* Luehe, 1898g, 623–624, 625 (in flamingo; Berberei); 1899, 537.—Jägers., 1898, 16; 1900, 738.—Looss, 1899b, 619.—Odhner, 1900, 12, 13, 17.
- microphylla* Ben., 1870, 1871a, 70, pl. 4, fig. 2 (in *Osmerus eperlanus*; Belgium).—Braun, 1889a, 369.—Linst., 1887.—Stoss., 1886, 52.
- microporum* Mont., 1889, 322, pl. 33, fig. 1 (in *Plagyodus ferox*; Madeira); 1891, 520 (*Plag. ferox*).—Looss, 1899b (to *Hemiusurus*).
- microsoma* Rud., 1819a, 109, 401 (in *Perca marina*; Naples, June).—Carus, 1884, 125.—Cobbold, 1860a, 27.—Duj., 1845a, 456.—Dies., 1850a, 370 (microsolum).—Sons., 1890, 141 (in *Serranus scriba*).—Stoss., 1886, 52.
- microsolum* Dies., 1850a, 370 (for *microsoma* Rudolphi).
- microstomum* Rud., 1809a, 50, 388–389 (in *Pleuronectes solea*; Paris, May); 1819a, 104.—Cobbold, 1860a, 26.—Dies., 1850a, 362.—Duj., 1845a, 467.—Kroyer,

DISTOMA—Continued.

- 1843-45a, 488 (in *Solea vulgaris*).—Mont., 1893, 193.—Olfers, 1816, 46.—Risso, 1826, 262.—Stoss., 1886, 53.—Wagener, 1860, 187.
- miescheri* Zschokke, 1890, 764, 765, 767, 781-784, pl. 11, fig. 2 (in *Trutta salar*) to (*Cladocœlium*).—Braun, 1892a, 642, 699, 700, 721, 733, 735.—Jacoby, 1900, 11.—Looss, 1894a, 173, 175; 1899b, 627.—Mont., 1893, 95 (*miescheri*) 153.
- miescherii* Mont., 1893, 153, for *miescheri*.
- migrans* Duj., 1845a, 407-409 (in *Sorex araneus*; *S. leucodon*) (= *Brachylaima advena* renamed, hence type of *Brachylaima*).—Braun, 1892a, 772; 1893a, 831, 864; 1899g, 492; 1901e, 341, 342.—Cobbold, 1860a, 9; 1879b, 296.—Dies., 1850a, 389.—Erc., 1881c, 64; 1882a, 300.—Gamb., 1896a, 71.—Moul., 1856a, 167.—Stiles & Hass., 1898a, 83, 84 (syn. of *Brachylaima advena* Duj.).—Stoss., 1892, 19 (*migras*) (in *Crocidura aranea* at Rennes; *Sorex leucodon*).
- migras* Stoss., 1892, 19, misprint for *migrans*.
- miliaris* Brown, 1881a, 329, misprint for *militare*.
- militare* (Rud., 1803) Rud., 1809a, 421-422 (in *Scolopax arquata*); 1819a, 115, 418.—Bellingham, 1844a, 426.—Ben., 1858a, 1861a, 84-89, 90, 168, 180, 193, 195, 215, 218, 219, 222, pl. 9, figs. 1-11 (includes *Cerc. echinata*; *C. fallax*; *C. pacifica*).—Braun, 1892a, 585, 865.—Chatin, 1880a, 308 (seminal receptacle).—Cobbold, 1879b, 436 to (*Echinost.*).—Crep., 1837, 311, 312, 316, 317.—Dies., 1836, 240; 1850a, 384-385; 1858d, 261; 1858e, 347 (in *Numenius arquatus*).—Duj., 1845a, 429.—Erc., 1881e, 29, 31; 1882a, 265, 267.—Fil., 1854a, 18, 19, 21.—Gamb., 1896a, 72.—Hahn & Lefèvre, 1884a, 516.—Hemp- rich & Ehrenberg.—Hoyle, 1890, 540.—Kowal., 1896d, 253 (3) (in *Limnocryptes gallinula*; *Dublayi*) to (*Echinost.*).—Leuck., 1863a, 456.—Linst., 1873, 106 (larva=*Cerc. echinifera*) (in *Scolopax gallinula*).—Mégnin, 1884, 53.—Mont., 1888a, 24.—Moul., 1856a, 190.—Nord., 1832a, 69 (in *Numenius arcuatus*).—Olfers, 1816, 46.—Sieb., 1835, 57; 1854, 23.—Sons., 1897, 252.—Stoss., 1892, 163 (to *Echinost.*).—Ward, 1895, 341 (in *Canis familiaris*) (perhaps *D. echinatum*).—Also reported for *Ascolopax gallinago*, *A. gallinula*, *Paludina vivipara*.
- milvi* (Gmelin, 1790) Zed., 1803a, 209-210.—Dies., 1850a, 385 (syn. of *D. echinocephalum* Rud.).—Rud., 1809a, 429 (includes *D. falconis milvi* Rud.); 1819a, 115 (renamed *D. echinocephalum*).
- minima* Ben., 1870, 67 (in *Clupea sprattus*).—Mont., 1891, 498, 514 (minimum).
- minimum* Mont., 1891, 498, 514 (for *minima*).
- minutum* Cobbold, 1859d, 364, pl. 63, figs. 4-5 (in *Hæmatopus ostralegus*); 1860a, 14 (London); 1861, 118.—Braun, 1892a, 579; 1902b, 155.—Mont., 1893, 83.—Mueller, 1897, 18, pl. 3, fig. 1.—Nicoll, 1906, 514 (in *Hæm. ostr.*).—Stoss., 1892, 184.
- mistroides* (Mont., 1896 [144 (*D. constrictum* Leared, 1862 [nec Mehlis, 1842] renamed)] Braun, 1899b, 715.
- [*modestum* Sluiter, 1898, (a tunicate).]
- moleculum* Linst., 1880, 51-52 (in *Rallus pygmæus*); 1887, 104.—Braun, 1892a, 579, 586; 1902b, 157.—Stoss., 1892, 150.
- molini* Polonio, 1859, see Par., 1894, 148 (*molinii*) (in *Rana esculenta*; Padova).
- molini* Par., 1894, 148 (for *D. molini*).
- molle* (Leidy, 1856), Stiles & Hass., 1894h, 162-163, fig. 2; 1895a, 737-741, pl. 3, figs. 1-3 to (*Polyorchis*); 1895b, 316; 1895c, 700-701; 1896d, 426.—Braun, 1902b, 23.—Mont., 1896, 165, 166 to (*Polyorchis*).
- mollissimum* Levin., 1881a, 59-61, pl. 2, fig. 4 (in *Cottus scorpius*; Egedesminde).—Braun, 1892a, 699, 711; 1893a, 911.—Johnstone, 1907, 185-186, fig. 16 (in *Belone vulgaris*; Foulney Island).—Odh., 1905, 356, 357 (syn. of *Lecithaster gibbosus* (Rud.)), 359 (of Stoss., 1889; syn. of *Lecithaster confusus* Odh.).—Stoss., 1886, 11 (in *Cott. scorp.*; Greenland); 1889, 23 (in *Alausa finta*; Triest).—Also reported for *Alosa vulgaris*.
- monas* Rud., 1819a, 679 (in *Amphisbæna* sp.; Brazil).—Cobbold, 1860a, 19 (in *Siphonops annulatus*; Brazil).—Dies., 1850a, 350.—Duj., 1845a, 453 to (*Brachylaimus*).—Par., 1896, 12-13, fig. 5 to (*Brachylaimus*).—Stoss., 1889, 71.
- monorchis* Stoss., 1890, 40-41 (2-3), pl. 15, fig. 62 (in *Cantharus orbicularis*; Triest).—Braun, 1892a, 579, 581, 698, 720, 721, 728, 729; 1895b, 129.—Jacoby, 1900,

DISTOMA—Continued.

- 23.—Looss, 1894a, 178, 218; 1899b, 599.—Mont., 1893, 82, 86, 87, 95, 149, 151 to [(Monorchis)].—Stiles & Hass., 1898a, 91, 98 (type of Monorchis).
- monticellii* Lint., 1898c, 518–520, pl. 44, figs. 2–8 (in *Remora remora*; Woods Holl, Mass., July, Aug.); 1901, 415, 418, 449, 451, 473, 482 (in *Rem. rem.*; *Paralichthys dentatus*, *Pomatomus saltatrix*); 1905, 327, 328, 334, 354, 360, 363, 364, 371, 373, 374, 376, 381, 386, 388, 393, 396, 399, 405, 411, 413, figs. 154, 155, 158 (in *Bairdiella chrysura*, *Centropistes striatus*, *Coryphæna equisetis*, *C. hippurus*, *Cynoscion nebulosus*, *Lagodon rhomboides*, *Leiostomus xanthurus*, *Menidia menidia*, *Menticirrhus americanus*, *Micropogon undulatus*, *Paralichthys albigitatus*, *P. dentatus*, *Pomatomus saltatrix*, *Prionotus tribulus*, *Rachycentron canadus*, *Scomberomorus regalis*, *Seriola lalandi*, *Synodus foetens*, *Trachinotus carolinus*).—Johnston, 1901, 337.—Looss, 1899b (to *Hemiurus*).
- mormyri* Stoss., 1885, 160, pl. 6, fig. 26 (in *Pagellus mormyrus*; Trieste, Feb.); 1886, 26; 1890, 41; 1893, 36.—Barbagallo & Drago, 1903, 410 to (*Brachylaimus*) (in *Pagellus mormyrus*).—Braun, 1892a, 721, 736, 737.—Lint., 1900, 290.—Looss, 1899b, 571 (judging from Stoss.'s description, this form belongs to the *Creadiinae*, perhaps to *Creadium*).—Mont., 1893, 94.
- mormyris* Hausmann, 1897b, 28 (for *mormyri*).
- motellæ* Ben., 1870, 63 (in *Motella mustela*).
- [*mucosum* v. Dr. (a tunicate).]
- mühlingi* Jægers., 1899a, 7 (in *Larus ridibundus*) (lingua of Mueh. renamed as n. sp.; apparently Koeningsberg).—Looss, 1899b, 586 (*muehlingi*) (pro tem. to *Tocotrema*).
- mülleri* Levin., 1881a, 56–58, pl. 2, fig. 3 (in *Cottus scorpius*, *Gadus ovak*; Egedesminde) [spelled also *müllerii*, *muellerii*].—Braun, 1892a, 643 (*muelleri*), 673, 720, 721, 735.—Looss, 1896b, 136; 1899b, 643 (type of *Progonus*).—Mont., 1888a, 34, 37 (*mullerii*); 1893, 43, 61 (*müllerii*), 82 (*muelleri*), 85, 86, 95, 182, 183.—Odhn., 1905, 365, 366 (*mülleri* to *Genarches*).—Stoss., 1886, 21, 58, to (*Brachylaimus*).
- mullerii* see *mülleri*.
- mulli* Stoss., 1883, 114–115 (in *mullini*; Trieste, January); 1886, 39 (in *Mullus barbatus*; Trieste); 1898, 48.—Carus, 1884, 127.
- muris* Erc., 1882c, 103 [pl. 3, figs. 16–21].—Hoyle, 1890, 538 (refers to Erc.'s experiments with *Cerc. armata*).
- musculi* Rud., 1819a, 119 (in *Mus musculus*; Cat. Vien.).—Braun, 1901e, 340 (of Dies., 1850a, Duj., 1845a) (syn. of *D. recurvum* Duj., 1845).—Dies., 1850a, 395.—Duj., 1845a, 441.—Stoss., 1892, 35 (in *Mus musculus*; Vienna).
- musculorum* Braun, 1893a, 871 [*D. musculorum* *percae* Waldenburg, renamed].
- musculorum percae* Waldenburg, 1860, 16 (in *Perca fluviatilis*).
- musculorum suis* Duncker, 1896a, 279–282, 8 figs.; 1897a, 197–198; (1881a, 23–25, figs. 1–6, 55, 159–160, 1 fig.; 1881d, 141; 1884a, 39–40, figs. 1–6).—Stiles, 1898a, 28. See *Agamodist. suis*.
- musculum* Brett, 1880a, 453; 1881a, 139–142 (in *Ovis aries*).—[=*Sarcosporidia*?]
- mutabile* Mol., 1859, 833–834 (in *Podarcis muralis*; Padua).—Braun, 1893a, 875; 1901, 563.—Hollack, 1902a, 869.—Klein, 1905, 20; 1905, 78.—Looss, 1902m, 818, 819, 823, 839.—Luehe, 1900, 563–566; 1901, 172, 173; 1901, 487.—Odhn., 1902, 41, 42.—Rizzo, 1902, 27 (to *Anchitrema*).—Sons., 1893, 185, in *Podarcis muralis* Wagl.—Stoss., 1895, 224.
- mystacidis* Linst., 1896i, 379, larva (in *Mystacides nigra*).
- naia* Duj., 1845a, 387, for *naja*.
- naja* Rud., 1819a, 99, 377–378, 589 (in *Coluber natrix*; Berlin) (includes *Fasc. longicollis* Abldg., 1788, 34, pl. 151, figs. A 1–2, from *Coluber natrix* renamed and *D. colubri natrix pulmonale*).—Braun, 1891, 99; 1892a, 766, 780, 784, 785; 1893a, 876.—Cobbold, 1860a, 18 (*D. longicolle*).—Crep., 1837, 326.—Dies., 1850a, 348.—Duj., 1845a, 395 to (*Dicrocoelium*).—Erc., 1881e, 79, 80, 81, 82; 1882a, 315, 316, 317, 318.—Giebel, 1857, 266.—Kampmann, 1894b, 454, 457.—Lamouroux, 1824a, 562.—Looss, 1899b, 603–604 (type of *Macrodiera*); 1902, 732 (type of *Saphedera*).—Luehe, 1899, 533.—Mont., 1893, 187.—Mueh., 1898, 29.—Par., 1894, 147 (in *Natrix torquata*; Padova).—Rizzo, 1902, 28.—Schauinsland, 1882, 496.—Sons., 1893, 185 (*naia*, in *Tropidonotus natrix*).—Stoss., 1895, 221–222.—Volz, 1899, 234, 237.—Also reported for *Zamenis viridiflavus*.

DISTOMA—Continued.

- nanum* (Rud., 1802) Rud., 1809a, 376–377; 1819a, 101.—Braun, 1893a, 874; 1901, 561, 567; 1902b, 47, 48, 49 (to *Plagiorchis*), 155.—Cobbold, 1860a, 12.—Dies., 1850a, 350.—Duj., 1845a, 446.—Linst., 1887, 104.—Olfers, 1816, 44.—Stoss., 1892, 184; 1892, 41; 1904, 2.
- nardoi* Polonio, 1859, see Par., 1894, 627 (in *Lacerta muralis*; Padova).
- nassæ mutabilis* Fil., 1855b, 22.
- negacotyle* Dies., 1850a, 379, for *megacotyle*.
- neglectum* Linst., 1887d, 101–102, pl. 2, fig. 3 (in *Rana temporaria*).—Braun, 1892a, 699, 721, 736, 737; 1893a, 881.—Kowal., 1894, 3; 1902d (9), 27 (syn. of *Pleurogenes claviger* Rud.).—Looss, 1894a, 82, 83, 84, 91, 92 (syn. of *D. clavigerum*); 1896b, 94, 95; 1899b, 617 (= *clavigerum* = type of *Pleurogenes*).—Mont., 1893, 83, 86.—Stoss., 1889, 65.
- nematoides* Mueh., 1898, 18 (in *Tropidonotus natrix*; East Prussia); 1898, 11, 29, 93–94, fig. 22.—Braun, 1899, 631; 1901b, 13, 15, 16.—Looss, 1899b, 567–568 (identical with *D. ercolanii*).—Luehe, 1899, 528, 529, 530.—Stoss., 1904, 5.—Volz, 1899, 236, 238.—Also reported for *Lacerta agilis*.
- nepbrocephalum* Dies., 1850a, 391 (in *Turdus saxatilis*; M. C. V., spring and summer) (*D. turdi* renamed).—Stoss., 1892, 174, to *Echinost*.
- neuronaia monroi* Maddox, 1867, 97, 98, pl. 8.—Cobbold, 1872b, 92 (*neuronaia monroii*); 1879b, 52.
- neuronaia monroii* Cobbold, 1872b, 92 (for *neuronaia monroi*).
- nigrescens* Olss., 1876, 19–20, pl. 3, fig. 41 (in *Lophius piscatorius*).—Braun, 1892a, 587; 1893a, 872, 873.—Stoss., 1886, 53 (in *Loph. pisc.*, *Molva vulgaris*).—Also reported for *Hippoglossus maximus*, *Lota molva*.
- nigroflavum* Rud., 1819a, 118–119, 425–427 (in *Orthogoriscus mola*; Naples, July) to (*Echinost*).—Bellingham, 1844a, 427.—Ben., 1855c, 2, 520; 1856, 84; 1858a, 1861a, 111.—Bettend., 1897a, 17; 1897, 321.—Brand., 1898a, 209 (17).—Braun, 1892a, 578, 684, 687; 1893a, 878.—Carus, 1884, 126.—Cobbold, 1860a, 29.—Crep., 1837, 310, 311.—Deslongchamps, 1829, 238 (*nigrostavum*).—Dies., 1850a, 394 (includes *Schisturus paradoxus*); 1858e, 353 (in *Orthag. mola*).—Drummond, —, 240.—Duj., 1845a, 469.—Kerbert, 1881a, 547.—Knoch, 1894a, 11, 12.—Kroyer, 1852–53a, 745 (in *Orthag. mola*).—Lint., 1898, 530–531, pl. 48, figs. 8–11, pl. 49, figs. 1–2; 1900, 282; 1901, 415, 422, 466 (in *Mola mola*); 1905, 328, 334, 374 (in *Coryphæna equisetis*).—Looss, 1894a, 145, 165; 1899b, 528, 631; 1902m, 721, 764, 765, 778.—Luehe, 1900, 487.—Mont., 1888a, 47; 1893, 13, 22, 23, 29, 30, 32, 40, 46, 47, 64, 65, 66, 67, 68, 80, 81, 83, 84, 93, 94, 95, 96, 102, 108, 113, 115, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 169, pl. 1, fig. 11, pl. 3, fig. 23, pl. 4, 38–42; 1891, 110; 1899, 103.—Olss., 1868, 25.—Par., 1887, 333–334.—Risso, 1826, 262.—Sons., 1890, 140–141 (in *Orthag. mola*); 1891, 265.—Stiles, 1901, 195, 196.—Stiles & Hass., 1898a, 92, 93 (?includes *Schisturus paradoxus*).—Stoss., 1886, 40.—Wagener, 1860, 174.—Ziegler, 1883, 552.
- nigrostavum* Deslongchamps, 1829, 238; misprint for *nigroflavum*.
- nigrovenosum* Bellingham, 1844a, 429.—Braun, 1893a, 873; 1900, 233; 1901b, 37.—Dies., 1858e, 343 (in *Tropidonotus natrix*; England).—Looss, 1894a, 219; 1902m, 504, 820, 821, 822, 831.—Luehe, 1899, 533, 534, 535 (thinks this is a *Lecithodendrium*); 1900, 561–562.—Mont., 1893, 24, 32, 33, 34, 40, 41, 42, 43, 82, 83, 84, 85, 88, 89, 91, 95, 98, 102, 105, 106, 107, 113, 116, 117, 185–189, pl. 6, figs. 88–90, pl. 8, figs. 117–120, 132; 1896, 151, 152, 154.—Mueh., 1898, 29.—Odhn., 1902, 42.—Rizzo, 1902, 28 (to *Lecithodendrium*).—Stoss., 1895, 222–223.—Volz, 1899, 235, 236, 237.—West, 1896, 323.
- nigrovenosum natrix torquata* Dies., 1855, 64, based on Bellingham, 1844.
- nigrum* Linst., 1883, 307 (in *Corvus cornix*); 1886, 31.—Stoss., 1892, 185.
- nitens* Lint., 1898c, 534–535, pl. 51, figs. 5–6, pl. 52, fig. 1 (in *Tylosurus caribbaeus*; Woods Holl, July); 1901, 415, 422 (in *Tyl. acus*).—Looss, 1899b, 710.
- [*nitidum* Sluiter, 1898, 17 (a tunicate).]
- noctulæ* Rud., 1819a, 119 (in *Vespertilio noctula*; C. E. V.).—Dies., 1850a, 349 (syn. of *D. chilostomum* Mehli).—Kolenati, 1857, 11.
- nodulosum* (Frœlich, 1791) Zed., 1800a, 164, 190–192; 1803a, 219.—Baird, 1853a, 56–57.—Ben., 1858a, 1861a, 100, 171, 177, 181, 191, 203.—Braun, 1892a, 575, 584, 587, 642, 654, 699, 747, 768, 772, 780, 784, 785, 786; 1893a, 865, 879, 911; 1900, 231, 232.—Bremsen, 1824, 134; 1824, pl. 10, figs. 1–3.—Crep., 1829,

DISTOMA—Continued.

- 67–69; 1837, 323, 324, 326, 327, 328, 329; 1839, 289.—Dies., 1836, 248; 1850a, 380–381 (syns. Fasc. luciopercae, F. percae cernuae Mueller, F. percina Schrank, F. nodulosa Frœlich, D. campanula Duj., D. luciopercae Zed., Planaria lagena Braun); (includes Crep., 1829a, 289; Mueller, 1836, 233, 238; Sieb., 1836, 217; 1858d, 282; 1858e, 343.—Duj., 1845a, 434–435 to (Crossodera).—Erc., 1881e, 56; 1882a, 292.—Fil., 1854a, 21; 1857c, 14 to (Crossodera).—Fraip., 1880c, 416.—Gamb., 1896a, 72.—Harz, 1881c, 5.—Hausmann, 1897b, 4, 6, 8, 14, 18, 20, 22, 27, 35 (in Perca fluviatilis).—Jackson, 1888, 652 (in Acerina cernua).—Kowal., 1894, 2; 1894, 222.—Kroyer, 1838–40a, 20, 41, 54; 1846–53a, 333; 1852–53a, 1221 (in Acerina vulgaris, Barbus fluviatilis, Esox lucius, Lucioperca sandra, Perca fluviatilis).—Lint., 1892c, 69, 70.—Linst., 1873a, 1–7, pl. 1, figs. 1–11 (development); 1873b, 328–331; 1873c, 230–231; 1873d, 345–347; 1873e, 101.—Looss, 1894a, 2, 33–41, 47, 49, 50, 123, 124, 133, 136, 150, 161, 164, 181, 191, 192, 197, 199, 208, 215, 216, 264, 268, pl. 1, figs. 8–10, pl. 5, figs. 92–94 (syns. Fasc. luciopercae, F. percae cernuae, F. percina, Plan. lagena) (in Acerina cernua, Aspro vulgaris, A. zingel, Esox lucius, Lucioperca sandra, Perca fluviatilis); 1902m, 452.—Mehlis, 1831, 184–185.—Mueh., 1898, 22.—Moul., 1856a, 19, 24, 46, 47, 99.—Nord., 1832a, 88; 1840, 617, 621 (to Fasc.).—Olfers, 1816, 46.—Olss., 1876, 23.—Rud., 1809a, 366, 410–413; 1819a, 113.—Schauinsland, 1882, 496, 497.—Sieb., 1835, 66, 69, 70, 73, 82; 1836, 217, 233, 235, 236, 237, 238, pl. 10, fig. 1; 1850, 645.—Sramek, 1901, 95, 106, 107, fig. 60 (syns. Fasc. luciopercae Muell., F. percae cernuae Muell., D. luciopercae Zed.) (in Acerina cernua, Perca fluviatilis).—Staff., 1902, 481 (to Bunodera) (in Salvelinus fontinalis).—Stiles & Hass., 1898a, 84, 85, 96 (type of Bunodera) (includes Fasciola luciopercae Mueller).—Wagner, 1857, 26, 27, pl. 21, figs. 3–7; 1860, 165.—Wright, 1884, 429, 430.—Reported also for Abramis vimba, Acipenser rubicundus, Barbus communis, Bithynia tentaculata; Cyprinus).
- nodulosum* partim Dies., 1850a, 380; 1858e, 354 (in Esox lucius) (syn. of D. (Crossodera) campanula Duj.).
- [*non coronata* Crep., 1837a, 326, as name of a group of distomes.]
- notidobiae* Linst., 1896i, 379, a larva in Notidobia ciliaris and Sialis lutaria “aus der Gärte.”
- obesa* Ben., 1870, 33 (Cottus scorpius).
- obesum* Dies., 1850a, 361–362 (in Leporinus friderici, Salminus brevidens, Xiphostoma cuvieri; Brazil); 1855, 67, pl. 3, figs. 11–13; 1858e, 341.—Braun, 1892a, 579; 1893a, 872, 875.—Cobbold, 1860a, 24; 1879b, 458.—Odhn., 1902, 152.—Stoss., 1886, 53.
- oblongum* (Cobbold, 1858) Braun, 1891, 99; 1892a, 579, 583, 635, 636, 674, 692; 1893a, 875, 894, 910; 1893, 354; 1900g, 250, to Campula.—Mont., 1893, 44.—Stiles, 1895i, 219–220, pl. 7, figs. 2, 3; 1895m.—Stoss., 1892, 16–17 (includes Campula oblonga, D. campula, D. campanula) (in Phocaena communis, Platanista gangeticum).
- obovatum* Mol., 1858, 288–289 (in Chrysophris aurata; Patavii); 1861, 201–202.—Braun, 1892a, 736, 737.—Carus, 1884, 130.—Dies., 1859c, 428.—Lint., 1900, 290.—Looss, 1899b, 571 (thinks this form, judging from the description given by Stoss., 1890, belongs to Creadiinae possibly to Creadium).—Mont., 1893, 94.—Stoss., 1885, 159; 1886, 27; 1889, 26; 1898, 35–36; 1901, (7) 95 (to Allocreadium).
- obtusum* Looss, 1896b, 78–81, 83, 85, 87, 88, 89, pl. 6, figs. 53–56 (in cameleon, Alexandria, Egypt); 1899b, 547 to Lecithodendrium.—Luehe, 1899, 534; 1900, 562.—Stiles, 1901, 200.
- “*ocreatum* Zed.” i. e. (Gœze, 1782) Luehe, 1899k, 538 (= Dist. lorum Duj.) type of Ityogonimus.—Looss, 1900, 607.
- ocreatum* (Rud., 1802) Rud., 1809a, 387, 397–398 (Clupea harengus; Griefswald) (includes Leuwenhoek, Epist. 97, 47; Fasc. halecis Gmelin, 1790a; Fasc. ocreata Rud., 1802; Dist. halecis Zed., 1803a, 222); 1819a, 107.—Braun, 1892a, 711; 1893a, 853.—Dies., 1850a, 298, 372.—Duj., 1845a, 422–423 to (Apoblema).—Kroyer, 1846–53a, 174 (in Cl. har.).—Looss, 1899b, 641 (= D. carolinea Stoss.) type of Pronopyge.—Mont., 1891, 496, 497, 499, 500, 501, 502, 506, 512; 1891, 16 (to Apoblema).—Reported also for Clupea alosa, C. pilchardus.
- ocreatum* Rud. of Mol., 1858, 289 (in Clupea alosa; Padua), 290; 1861, 209–210, pl. 3, fig. 7 (in ———).—Dies., 1859c, 432 (of Mol., p. 289, in Alausa vulg;

DISTOMA—Continued.

- Padua).—Johnstone, 1907, 177–180, fig. 13 (in *Conger vulgaris*; England).—Linst., 1878a, 269 (syn. of *D. ventricosum* Rud., in *Alosa* vulg.).—Mont., 1891, 497, 498, 499, 500, 501, 520.—Sons., 1891, 259 (syn. of *Dist. ventricosum* Rud.).—Stoss., 1886, 12 (in *Ammodytes lancea*, *A. tobianus* [see next entry sub Odhner]; *Clupea harengus*, *Trutta salar*).—Also reported for *Alosa finta*, ? *A. sardina*.
- ocreatum* Mol., of Olss., 1868, 48, pl. 5, figs. 96–98 (in *Ammodytes lancea*, *A. tobianus*; ———).—Braun, 1891d, 423.—Lander, 1904a, 1, syn. of *Hemiurus crenatus* (Rud.).—Looss, 1896b, 125; 1899b, 640, 641 (to *Hemiurus*).—Luehe, 1901n, 399, 400 (syn. of *Hemiurus crenatus* Rud.).—Mont., 1891, 501, 505.—Odhner, 1905, 352 (syn. of *Brachyphallus crenatus*) (fig. 98 from *Ammodytes lancea*, *A. tobianus*, syn. of *Hem. communis*).—Stoss., 1886, 12.
- ocreatum* Mol., of Lint., 1898c, 514–515, pl. 42, fig. 13 (in *Pomatodus saltatrix*; Woods Hole); 1900a, 269, 282 to (*Apoblema*), 288 (in *Merluccius bilinearis*, *Pollachius*; Woods Hole); 290, pl. 35, figs. 16–24; 1901b, 415, 418, 472, 474, 475, 478 (in *Lopholatilus chamaeleonticeps*, *Merluccius bilinearis*, *Pollachius virens*, *Urophycis chuss*; Woods Hole).—See *Hemiurus lintoni*, Pratt.
- ocreatum* of Stoss., 1888.—Stoss., 1898, 30 (syn. of *Apoblema stossichii* Mont.) (in *Alosa sardina*, Trieste).—Luehe, 1901n, 398 (of Mont., 1887; Stoss., 1888, 1898) in stomach of *Clupea pilchardus* at Trieste, syn. of *Hemiurus stossichii* Mont., 1891).—Mont., 1887, 86; 1891, 16, 21; 1891, 514 (syn. of *Apoblema stossichii*).
- ocreatum* (miscellaneous).—Ben., 1870, 64.—Dies., 1855a, 399.—Hausmann, 1897b, 4, 6, 20, 22 (in *Trutta salar*; near Basel).—Linst., 1873, 99.—Mont., 1888a, 8, 56.—Jackson, 1888, 648.—Johnstone, 1901, 337.—Juel, 1889, 7.—Olfers, 1816, 46.—Pag., 1857, 4.—Pratt, 1898, 6 (in *Pseudocalanus elongatus* at Kiel) det. by Möbius as *ocreatum*, by Mont., 1891, 13 as *Apoblema* append. Rud.; 1898, 354.—Wagener, 1860, 166, 183.—Will.-Suhm., —, 142–143; 1871, 382–383.
- octopodis* delle Chiaje, 1841, 139.—Carus, 1884, 133.
- ocular* de Bonis, 1882, 180.—Stiles, 1902s, 29 (see *Agamodist. ophthalmobium*).
- oculare* Moquin-Tandon, 1860, 347.—Stiles, 1902s, 29.
- oculatum* Levin., 1881a, 64, 67, pl. 2, figs. 7–8 (in *Cottus scorpius*; Egedesminde).—Braun, 1892a, 579, 693, 728, 729.—Johnstone, 1907, 188.—Looss, 1894a, 204, 218.—Mont., 1888a, 10, 38, 49, 78; 1891, 121; 1893, 41, 70, 82, 88, 95, 96, 105, 107, 108, 109, 160.—Odhner, 1905, 328, 331 (type of *Acanthopsolus*).—Stoss., 1886, 38 (in *Cottus scorpius*; Greenland).—Also reported for *Clupea harengus*.
- oculi humani* Gescheidt, 1833, 434–435 (in *Homo*).—Ammon, 1833.—Assenova, 1899, 29.—R. Bl., 1888a, 542, 630–631; 1891, 610.—de Bonis, 1882, 180.—Braun, 1895b, 145; 1903, 3. ed., 151 (perhaps *F. hepatica*); 1906, 156.—Cobbold, 1866, 7.—Dies., 1850a, 334 (syn. of *D. ophthalmobium*).—Dunglison, 1893, 338, 820.—Eiss, 1838, 22–23.—Gamb., 1896a, 63.—Hackley, 1886, 519.—Ijima, 1889b, 123.—Kuech. & Zuern, 1881, 328–329, pl. 8, fig. 12.—Moniez, 1896, 86, 152–153.—Mont., 1892, 713.—Schneidemuehl, 1896, 302.—Sieb., 1839, 164.—Stiles, 1898a, 48; 1902s, 27, 29, 32, 33.—Fischer von Waldheim, 1840a, 149.—Wallenstedt, 1847, 7.—Ward, 1895, 328 (in *Homo*) (see *D. ophthalmobium*); 1903, 866 (syn. of *Agamodist. ophthalmobium* Dies.).—Weinland, 1859, 281 to *Dicrocoelium*.
- oesophagi ardæ nigræ* Viborg, 1795, 242.—Baird, 1853a, 51.—Dies., 1850a, 337 (syn. of *D. hians*).—Rud., 1809a, 359.
- okeni* Ariola, 1906, 185, for *okenii* (Dist.).
- okenii* Kœlliker, 1849c, 55–58, pl. 1, fig. 7 (in *Brama raji*).—Ariola, 1906, 185 (okeni) (to the Kœllikeria).—Ben., 1858a, 1861a, 105 (syn. of *D. filicollæ*); 1870c, 137.—Braun, 1892a, 572, 573, 574, 647, 672, 698; 1893a, 878, 894, 912; 1906, 184 (okeni).—Dies., 1850a, 359, includes *Monost. filicollæ*; *M. ? molæ*; 1859c, 423, 429–430.—Gamb., 1896a, 70, fig. 35.—Goldb., 1855, 16.—Kroyer, 1838–40a, 594; 1852–53a, 745 (in *Brama rayi* Bl.; *Orthagoriscus mola*).—Looss, 1892, 81.—Mont., 1893, 137, 150.—Moul., 1856a, 25 (trouvé par Kœlliker, dans l'intestin d'un cyprin).—Sons., 1890, 143.—Tasch., 1879, 608, 613.—Wagener, 1852, 566.
- okuli humani* of Schneidemuehl, 1896, 302 for *oculi humani*.
- oligoon* Linst., 1887d, 103 (in *Gallinula chloropus*).—Braun, 1892a, 167; 1902b, 16, fig. 11 (includes *D. spiculigerum* Mueh.).—Mueh., 1898, 97.—Stoss., 1892, 149.

DISTOMA—Continued.

- oloris* Dies., 1855, 64, based on Bellingham, 1844a, 427.
- onycephalum* Galli-Valerio, 1898m, 923 (for *oxycephalum*).
- opacum* Ward, 1894, v. 15, 173-182, 1 pl. (in *Amia calva*, *Ictalurus punctatus*, *Perca flavescens*, *Cambarus propinquus*; New Baltimore; Lake St. Clair; August); 1895, 15 Feb., 218-219; (1895), 633-634; 1901, 176-184.—Braun, 1900, 234.—Jägers., 1900, 736, 738, 740.—Looss, 1899b, 621.—Odhn., 1905, 317.—Stiles & Hass., 1902d, 20 (type of *Microphallus*).
- ophthalmobium* Dies., 1850a, 334 (in *Homo*; Dresden) [D. *oculi humani* Gescheidt renamed]; 1858e, 333.—Aitken, 1866, 804, 839; 1872, 146, 205; 1874, 58.—R. Bl., 1888a, 630.—de Bonis, 1876, 164; 1882, 180.—Braun, 1883a, 64-65; 1893a, 870; 1903, 3. ed., 151 (perhaps *F. hepatica*); 1906, 156.—Cobbold, 1860a, 6; 1864a, 191-192, fig. 41; 1866, 7; 1876, 211. "D. *ophthalmobium* or *Monost. lentis*;" 1879b, 36, fig. 5.—Dav., 1877a, lxxix, 820, 822.—Dunlison, 1893, 338, 820, 1174.—Gamb., 1896a, 63.—Goubert, 1878, 130.—Gunther, 1858, 209.—Harley, 1864a, 62.—Hæk, 1859, 42.—Hoyle, 1890, 538.—Ijima, 1889b, 123.—Jamieson, 1897a, 74.—Kholodk., 1898, 26, 32, 34, pl. 11, fig. 28; 1899a, 152.—Kuech., 1855, 181, 222-223, pl. 4, figs. 13-15.—Leuck., 1863a, 526, 610-613, 633, fig. 205; 1889, 440, fig. 191.—Linst., 1878, 3.—Moniez, 1896, 152-153.—Moquin-Tandon, 1861, 373.—Mosler & Peiper, 1894, 177.—Schneidemuehl, 1896, 302.—Stiles, 1898a, 48; 1902s, 25, 29, 34.—Verrill, 1870, 171.—Vogt, 1878, 10, 13.—Wagner, 1883, 121.—Ward, 1895, 328 (perhaps young *D. lanceolatum*); 1903, 866 to Agamodist.—Wood & Fitz, 1897, 335.
- opisthotrias* Luetz, 1895a, 181-188, pl. 2, figs. 1-4 (in *Didelphys aurita*); 1895b, 189-193; 1896a, 623.—Braun, 1899g, 492 (to *Harmost.*); 1900h, 12; 1901e, 338-339 (to *Harmost.*).—Looss, 1899b, 748 (to *Heterolope*).—Luehe, 1899, 532.—Par., 1896, 3, 5.
- orbiculare* Dies., 1850a, 349 (in *Cebus trivirgatus*; Brazil); 1855, 64, pl. 2, figs. 20-22; 1858e, 335-336.—Braun, 1901e, 311, 312, 313, fig. 14.—Cobbold, 1860a, 7; 1879b, 289.—Stoss., 1892, 36 (in *Nyctipithecus trivirgatus*; Brazil).
- oricola* Leidy, 1884a, 47 (in *Alligator mississippiensis*; Florida); 1891a, 414 (syn. of *D. incommodum*); 1904a, 180.—Braun, 1893a, 872.—Mont., 1892, 715 (*oricula*).—Stoss., 1895, 219 (*oricula* (syn. of *D. pseudostomum*)).
- oricula* Mont., 1892, 715, for *oricola*.—Stoss., 1895, 219.
- ornithorhynchi* Johnson, 1901a, Nov. 7, 334-338, pl. 22, figs. 1-4 (in *Ornithorhynchus anatinus* Shaw).
- orthagorisci mola* Dies., 1855, 64; 1858e, 342 (in *Orthagoriscus mola*; Ireland) (renamed *D. macrocotyle*).
- osculatum* Looss, 1901e, 654-656, fig. 11 (in *Motella vulgaris*).
- ovatum* (Rud., 1803) Rud., 1809a, 50, 357-358, 420, 432; 1819a, 93, 121, 674.—Anacker, 1887c, 513.—Baillet, 1866b, 105.—Baird, 1853a, 51 (includes *Hirudo fasciolaris* Mueller, *Fasc. ovata* Rud.).—R. Bl., 1888a, 643.—Braun, 1892a, 714, 734, 736, 765; 1893a, 876, 877, 893; 1893d, 467, 468; 1901, 12, 13, 14, 15, 16; 1901, 258-259; 1901, 561; 1902b, 68 (to *Cephalogonimus* by Sons., 1890; type of *Prosthogonimus* Luehe, 1899, 539; and of *Prymnopriion* Looss, 1899b, 628), 69, 72 (in *Corvus corone*) 73, 74, 75, 76, 77, 78, 79, 80, 82, 83, 85.—Caruccio, 1886, 293.—Cobbold, 1860a, 9; 1879b, 440.—Crep., 1837a, 317, 318, 322, 326, 329; 1846, 130, 131, 134-137, 139, 141-143, 146; 1851, 284.—Dav., 1877a, lxxix.—Dies., 1850a, 335-336 (includes: *Igel* in *Hühneriern* Hanow; *Hirudo fasciolaris* Mueller, *Fasc. ov.* Rud., *D. anatis domesticæ* Rud.); 1858e, 333 (in *Fringilla montana*, *Scolopax gallinago*, *Ardea grus*, *Fulica atra*).—Duj., 1845a, 394-395.—Giebel, 1857, 265.—Hahn & Lefèvre, 1884a, 516.—Hass., 1896a, 2 (to *Cephalogonimus*).—Hugi., 1827, 48.—Juel, 1889, 36.—Kowal., 1894, 2; 1894, 221; 1895, 350; 1895, 372-390, pl. 8, fig. 7; 1896d, (7), 257, to (*Cephalogonimus*) (in *Corvus cornix*, *Gallinago scolopacina*; *Dublaney*).—Landois, 1882a, 13; 1882, 23 (in hen's egg).—Linst., 1873, 95, 96, 97, 98, 100, 101, 103.—Lint., 1887, 367-369 (in hen's egg; U. S. A.).—Looss, 1894a, 264; 1899b, 628-629 (type of *Prymnopriion*), 720, 721; 1900, 608.—Luehe, 1899, 539 (type of *Prosthogonimus*).—Mehlis, 1831, 178.—Mont., 1893, 157, 190.—Mueh., 1898, 29-30, 100.—Nord., 1840, 616.—Olfers, 1816, 44.—Sambon, 1900, 219.—Schneidemuehl, 1896, 303.—Sieb., 1835, 64, 65; 1836, 233.—Sons., 1890, 134.—Spencer, 1889, 109 (in hen's egg).—Staff., 1902, 719.—Stoss., 1892, 144 (to *Cephalogonimus*); 1898, 23.—Tschudi, —, 75.—Verrill, 1870, 179.—Wedl, 1857, 241-242, pl. 1, fig. 1.—Wolfhüegel, 1900, 9, 24, 26, 32.—Also reported for *Anas boschas dom.*, *A. clangula*, *A. clypeata*, *A.*

DISTOMA—Continued.

- ferina, *A. glacialis*, *A. marila*, *Anser cinereus* dom., *Ascolopax gallinago*, *Astur nisus*, *Aegolius brachyotus*, *Buteo lineatus*, *Ceryle rudis*, *Chelidon rustica*, *Colymbus subcristatus*, *Corvus americanus*, *C. corax*, *C. cornix*, *C. corone*, *C. frugilegus*, *C. glandarius*, *C. monedula*, *C. pica*, *Crax pratensis*, *Cygnus musicus*, *Falco buteo*, *F. nisus*, *F. subbuteo*, *Fringilla cœlebs*, *Fulica atra*, *Fuligula ferina*, *F. marila*, *Gallinula chloropus*, *Grus cinerea*, *Hirundo urtica*, *Lanius minor*, *Larus canus*, *Numenius arcuatus*, *N. arquata*, *Otis tarda*, *Parus major*, *Phasianus gallus*, *Rallus porzana*, *Scolopax gallinago*, *S. rusticola*, *Strix brachyotus*, *Turdus viscivorus*, *Uria grylle*, *Vanellus cristatus*.
- ovatum* of Matsubara (in chickens; Yedo, Japan).—Braun, 1902b, 81–82 (= *Prosthogonimus japonicus*).
- ovatum* of Wedl, 1858, 241, pl. 1, fig. 1 (in *Scolopax gallinula*, *Grus cinerea*, *Fulica atra*) and of Linst., 1873, 96 (in *Corvus corone*).—Braun, 1902b, 72–73, 77–78 (= *Prosthogonimus cuneatus*).
- oviforme* Poir., 1886, 26–27, pl. 2, figs. 7, 8, 9 (in *Nycticebus javanicus*).—Braun, 1892a, 700, 721, 735, 737; 1901e, 311, 313.—Looss, 1899b, 608, 618, 714, 715 (to *Phaneropsolus*).—Luehe, 1899, 536 (thinks it is a *Lecithodendrium*).—Mont., 1888a, 38; 1893, 43, 83, 95, 102, 106, 107.—Stoss., 1892, 12–13 (in *Nyct. jav.*).
- ovocaudatum* Vulpian, 1859, v. 5, 150–152 (in *Rana viridis*).—Brand., 1898a, 215 (23).—Braun, 1892a, 603, 765, 774, 775, 784, 786, 787, 798, 803, 805, 808, 810, 814, 815; 1893a, 857, 865, 872, 881; 1893b, 181; 1895b, 11.—Creutzburg, 1890a, 32 pp. (anat. development).—Darr, 1902, 654, 657.—Gamb., 1896a, 72.—Heckert, 1887a, 460.—Kampmann, 1894b, 446.—Leuck., 1863, 490.—Looss, 1885b, 24; 1892a, 74, 101, 123; 1894a, 2, 109–111, 120, 133, 136, 137, 154, 168, 170, 173, 179, 184, 197, 199, 200, 201, 207, 210, 211, 212, 214, 275, pl. 3, fig. 49, pl. 6, fig. 123; 1893b, 813; 1896b, 215, 226, 227; 1899b, 645 (type of *Halipegus*).—Luehe, 1900, 558.—Mont., 1888, 68, 72.—Mueh., 1898, 29.—Schuberg, 1894, 169.—Sons., 1892, 95; 1893, May 7, 215–217; 1893, 187, 188 (in *Rana esculenta*, *R. temporaria*); 1893, 28 Oct., 566; 1893, Apr. 30, 63–64; 1894, 2 May, 172 (*Distomomum*).—Stoss., 1889, 71.
- ovocaudatum* of Nickerson, 1898, 261–264.—Staff., 1900, 405, 409–410; 1905, Apr. 11, 687–688 (syn. of *Halipegus occidualis*).
- ovofarctum* Odn., 1902, 153–154 (in gallbladder of *Synodontis* sp.; Omdurman, Apr.); 1902, 42.
- ovum* Crep., 1846, 159 (in *Planorbis marginatus*).
- oxycephalikum* Schneidemuehl, 1896, 303, for *oxycephalum*.
- oxycephalum* Rud., 1819a, 98, 375–376 (in *Anas boschas*, *A. clypeata*).—Anacker, 1887c, 513.—Baird, 1853a, 56 (var. of *echinatum* in *Gallus* dom.).—Baillet, 1866b, 105.—Bellingham, 1844a, 423.—Braun, 1892a, 595; 1893a, 879.—Cobbald, 1860a, 12; 1879b, 440.—Crep., 1837, 311, 312; 1846, 142, 144, 145.—Dies., 1850a, 345–346 (syns. *Fasc. appendiculata boschadis*, *D. inermis*); 1858e, 335 (in *Anas clyp.*; *A. crecca*).—Duj., 1845a, 448.—Galli-Valerio, 1898m, 923 (*onycephalum*) (syn. of *Echinost. conoideum*).—Giebel, 1857, 265.—Hahn & Lefèvre, 1884a, 516 (syn. *Fasc. appendiculata Froeh.*).—Hass., 1896a, 2, 3 (syn. of *Echinost. echinatum*).—Landois, 1882, 23.—Linst., 1873, 105.—Leuck., 1863a, 471.—Looss, 1885b, 18.—Mont., 1888, 40.—Nord., 1832a, 47.—Schneidemuehl, 1896, 303 (*oxycephalikum*).—Stoss., 1892, 167 (syn. of *Echinost. ech.*); 1899, 13.—Verrill, 1870, 179.—Reported for *Anas boschas*; *A. boschas* dom.; *A. boschas fera*; *A. clypeata*; *A. crecca*; *A. ferina*; *A. marila*; *A. querquedula*; *A. tadorna*; *Anser albifrons*; *A. cinereus*; *Fuligula ferina*; *Mergus merganser*).
- oxyurum* Crep., 1825, 48–49 (in *Anas marila*, Feb.); 1837a, 316; 1846, 141, 142, 143.—Braun, 1891, 100; 1892a, 570; 1901, 944; 1902b, 11, 15, 23, 26.—Cobbald, 1860a, 12.—Dies., 1850a, 345 (*A. marila* at Greifswald, *A. clangula*, *A. fuligula*, *A. glacialis*, *A. nigra*, *A. tadorna*).—Duj., 1845a, 450.—Linst., 1882, 19.—Poir., 1885, 101 (*oxyurus*).—Sieb., 1836, 239.—Stoss., 1892, 185.—Reported also for *Bucephala clangula*; *Fuligula cristata*; *F. marila*; *Harelda glacialis*).
- pachisomum* Par., 1894, 155 (for *pachysomum*).
- pachyderma* Braun, 1899e, 629 (in *Chelone atra* =? *Thalassochelys caretta*): 1901b, 26–27, fig. 23.

DISTOMA—Continued.

- pachysoma* Eysenhardt, 1829, 144 (in *Mugil auratus*).—Braun, 1892a, 578, 614, 672, 698, 727, 737; 1893a, 910; 1895b, 129.—Cobbold, 1860a, 27.—Dies., 1850a, 366 (in *Mug. aur.*).—Looss, 1894a, 178; 1902, 129.—Luehe, 1900, 487.—Mont., 1888a, 12; 1893, 43, 82, 129, 151 to [(*Monorchis*)].—Par., 1894, 155 (*pachisomum*).—Sons., 1891, 253, 255.—Stiles & Hass., 1898a, 91.—Stoss., 1886, 15, 47–48 (in *Mugil*); 1886, 16 (in *Mugil auratus*, *M. cephalus*); 1898, 27 to (*Podocotyle*).—Also reported for *Mugil chelo*, *Mergil auratus*.
- pacifica* Steenstrup, 1842, 74–75, 135, pl. 2, figs. 2–8 (of *Cerc. echinata* Sieb.).—Braun, 1881a, 329.—Dies., 1850a, 297 (syn. of *Cerc. fallax*); 1855a, 390–391 (syn. of *Cerc. (Hormost.) echinata*) (includes Sieb., 1843, 6, 54–57).—Erc., 1881e, 46, 47, pl. 2, fig. 7; 1882a, 282, 283 (in *Paludina vivipara*).—Fil., 1854a, 17, 18.—Moul., 1856a, 187, 189, 201, 215, 230.
- pagelli* Ben., 1870, 1871a, 43, pl. 4, fig. 17 (in *Pagellus centrodonatus* at Louvain, Belgium; *Cantharus brama*, Belgium).—Jacoby, 1900, 16.—Stoss., 1886, 20 (in *Cantharus brama*, *Pagellus centrodonatus*).
- palæmonis* Linst., 1877b, 186 (in *Palæmon serratus*); 1878a, 315.
- palliatum* Braun, 1892a, 608 (misprint for *palliatum*).—Gronkowski, 1902a, 523, 531 (16, 24) (for *palliatum*).
- pallasii* Poir., 1885, 13–14, pl. 23, fig. 6 (in *Delphinus phocaena*).—Braun, 1892a, 569; 1893a, 873.—Buttel-Reepen, 1902, 167, 171, 172, 176, pl. 6, fig. 16.—Darr, 1902, 666, 671, 698.—Linst., 1886, 125.—Stoss., 1892, 27 (in *Phocaena communis*; India).
- palleniscum* Shipley & Hornell, 1905, 53–54, 55, fig. 11 (in *Balistes* sp.; Ceylon).
- pallens* Rud., 1819a, 111, 408, 676 (in *Sparus aurata*; Naples; August).—Carus, 1884, 130.—Cobbold, 1860a, 26.—Dies., 1850a, 337, 348.—Duj., 1845a, 457–458.—Lint., 1898, 526–527, pl. 47, figs. 8–9; 1901, 415 (in *Alutera schoepffii*), 420, 464.—Looss, 1902m, 762.—Stoss., 1886, 31; 1887, 93; 1898, 47.
- palliatum* Looss, 1885a, 390–427, pl. 23, figs. 1–5, 7–14, 30; 1885b, 3–40, 46, pl. 23, figs. 1–5, 7–14, 30 (in gall ducts of *Delphinus delphis*); 1894a, 234; 1899b, 556, 558 (type of *Brachycladium*), 560; 1902m, 711, 776, 777.—Bettend., 1897a, 15; 1897, 319.—Biehringer, 1888a, 230, 231, 232, 233, 234.—Braun, 1892a, 569, 591, 593, 594, 597, 602, 607, 608 (*palliatum*), 618, 629, 640, 641, 662, 666, 671, 673, 674, 675, 677, 682, 688, 699, 701, 704, 711, 712, 713, 717, 719, 726, 727; 1893a, 875, 910; 1893a, 354; 1900g, 250, 251, 252, 253.—Buttel-Reepen, 1902, 185, 202.—Gronkowski, 1902a, 523, 531 (16, 24) (*palliatum*).—Jackson, 1888, 644.—Juel, 1889, 36, 37.—Kath., 1894a, 142.—Kowal., 1898h, 124 (21).—Lander, 1904a, 16.—Linst., 1886, 125; 1890f, 174, 183.—Mont., 1888a, 26, 36, 52, 54, 58; 1893, 27, 33, 41, 42, 65, 66, 67, 75, 83, 84, 85, 88, 90, 91, 95, 99, 102, 106, 107, 108.—Poir., 1886, 37.—Schuberg, 1895, 178.—Stiles, 1895l, 219, pl. 7, fig. 1; 1901, 203, 204.—Stoss., 1892, 10–11 (to *Cladocœlium*).—Volz, 1899, 232.—Wolf, 1903, 615, 618.
- palmatum* Rentsch, 1860, 38 (in *Seestichling*, *Gasterosteus*), 41.
- paludinæ impuræ* Fil., 1854, 279, pl. 2, figs. 28–31 (in *Paludina impura*); 1854a, 24–25, pl. 2, figs. 28–31; 1855b, 23; 1857c, 9.—Dies., 1855a, 399 (to *Cercariæum*).—Erc., 1881e, 33, 46; 1882a, 269, 282.—Leuck., 1863a, 500.—Looss, 1894a, 32, 362 (see *perlutum*).—Moul., 1856a, 96 (to *Cercaria*).
- paludinæ impuræ* Baer, v. 13, 2, 655.—Dies., 1855a, 399 (to *Cercariæum (tentaculorum)*).
- paludinæ impuræ armatum* Fil., 1857c, 207–211, pl. 2, figs. 14–16; 1857c, 9–13.—Dies., 1858d, 281 (to *Cercariæum*).—Looss, 1894a, 32.
- paludinæ impuræ inerme* Fil., 1857c, 207–211, pl. 2, figs. 16–18; 1857c, 9–13.—Dies., 1858d, 280 (to *Cercariæum*).—Erc., 1881e, 33, 34; 1882a, 269, 270.—Looss, 1894a, 32.—Sons., 1884, 58; 1897, 252.
- [*pancerii* D. Valle (a tunicate).]
- pancreaticum* Rail., 1890, 143; 1893a, 360 (in sheep; Japan); 1897, 371–377, 1 fig.—Gomy, 1897a, 371, 372.—Jacoby, 1900, 10, 11.—Janson, 1893c, 261.—Looss, 1907, Feb. 1, 124–127, of Janson, (from Hong-Kong).—Stiles, 1898a, 57.—Ward, 1895, 332 (in *Bos taurus*).
- pancreaticum* Katsurada & Saito, 1906, 501–506 (in cattle; Japan).—See *Eurytrema*.
- pancreatinum* Ward, 1895, 335 (in *Ovis aries*) “probably error for *D. lanceolatum*.”
- papillatum* Rud., 1814a, 105, Fasc. appendiculata Freëlich, p. 56, pl. 2, figs. 8–9 (in *Anas boschas fer.*; Germany), renamed.

DISTOMA—Continued.

- papilliferum* Mol., 1859, 290 (in *Belone acus*; Batavii); 1861, 213.—Braun, 1892a, 567, 576; 1900, 231.—Carus, 1884, 128.—Dies., 1859c, 433.—Stoss., 1886, 19.
- [*papillosa* Crep., 1837a, 326, as name of a group of distomes.]
- papillosum* Dies., 1850a, 381 (in *Beroë rufescens*; Triest) (= *D. beroës* Will, 1844, 343, pl. 10, figs. 10–13, renamed).—Mont., 1888, 198, 199; 1893, 123.
- paronæ* Mont., 1893i, 43, 191, pl. 1, fig. —(in *Seriola dumerilii*).—Par., 1896 (in *Lichia amia*).
- [*parva* Sluiter, 1900, 6, a tunicate.]
- patellare* Sturges, 1897, Sept., 57–69, figs. 1–5 (in *Triturus* (Molge) *pyrrhogaster* Boie).—Braun, 1899b, 721; 1899g, 492 (to *Phyllodist.*); 1901b, 9, 10, 12.—Looss, 1899b (to *Spathidium*).—Odhn., 1902, 64, 65.
- pectinatum* Lint., 1905, 327, 334, 366, 389, figs. 200–203 (in *Trachinotus carolinus*, *Bairdiella chrysura*; Beaufort, N. C.).
- pedicellatum* Stoss., 1887, 184–185, pl. 12, fig. 52 (in *Chrysophrys aurata*; Triest) (according to Stoss., 1898, this form belongs in *Podocotyle*).—Braun, 1892a, 578, 720; 1893a, 874, 910.—Looss, 1899b, 571 (thinks it belongs to the *Creadinæ* possibly to *Creadium*).—Luehe, 1900u, 487 (*pedicellatum*).—Mont., 1888a, 12; 1893, 86, 94, 105, 107.
- pedicillatum* Luehe, 1900u, 487 (for *pedicellatum*).
- pedocotyle* Leidy, 1890, 282 (in *Mola rotunda*; Beach Haven, N. J.); 1904a, 231.—Mont., 1893, 135.
- pelagiæ* Kœlliker, 1849, 53–55, pl. 2, figs. 5–6 (in *Pelagia noctiluca*; Naples) to (*Accacelum*).—Ben., 1858a, 1861a, 178.—Braun, 1892a, 673, 682; 1893a, 852.—Buttel-Reepen, 1902, 202.—Crep., 1849a, 78.—Dies., 1850a, 395.—Mont., 1888, 198, 199; 1893, 29, 30, 40, 47, 64, 122, 123, 124, 126, 135, 136.—Moul., 1856a, 217 (in *Argonauta argo*; *Pel. noct.*).—Pag., 1862, 298 (in *Arg. argo*).
- pelagicum* Staff., 1900, 399–401, fig. 1 (free form) at Passamaquoddy Bay, St. Andrews, New Brunswick; 1902, 481, to *Hemiuroid* (*Apobema*).
- pellucidum* Linst., 1873, 95–103, pl. 5, figs. 5–6 (in *Gallus domesticus*).—Anacker, 1887c, 513.—Braun, 1892a, 678, 711, 725, 728, 734, 736; 1893a, 873, 893; 1901, 13; 1902b, 68, 72, 79 (*Prosthogonimus*).—Hass., 1896a, 2 (to *Cephalogonimus*).—Juel, 1889, 39.—Landois, 1882, 23.—Looss, 1899b, 539 (= *Prosthogonimus*), 628 (to *Prymnoprion*), 721.—Luehe, 1899, 539.—Mont., 1893, 157.—Neumann, 1892, 374 (to *Mesogonimus*).—Rail., 1890, 138 (to *Cephalogonimus*); 1893a, 369.—Schneidemühl, 1896, 303.—Staff., 1902, 719.—Stoss., 1892, 157.
- pelophylaxis esculenti* Wedl, 1849, 197.—Braun, 1893a, 870.—Dies., 1858e, 355 (in *Pelophylaxis esculentus*).—Stoss., 1889, 71 (in *Rana esculenta*).
- peregrinum* Braun, 1900f, 389 (in *Rhinolophus ferrum-equinum*); 1900b, type of *Mesotretes*.
- pericardium* Crep., 1849a, 78, *D. helici* Leidy, renamed.—Dies., 1858d, 278 (syn. of *Cercariaeum vagans*).—Leidy, 1857, 44 (= *D. vagans*).
- perlutum* Nord., 1832, 88–98, 101, pl. 9, figs. 1–9 (in *Cyprinus tinca*); 1840, 617, 620 (syn. of *Fasc. eriocis*).—Ben., 1858a, 1861a, 193.—Braun, 1892a, 747, 768, 780, 784; 1893a, 856; 1893b, 183.—Cobbold, 1860a, 29.—Crep., 1837, 311, 313, 314, 316, 317, 318, 321, 322, 323, 324, 328, 329.—Dies., 1850a, 394–395 (includes *Fasc. tincae*; *D. globiporum tincae*); 1858d, 280 (larva = *Cercariaeum paludinae* impure inermes).—Duj., 1845a, 401 to (*Podocotyle*).—Erc., 1881e, 72; 1882a, 308.—Fil., 1857c, 12, 13.—Harz, 1881c, 5.—Hausmann, 1896a, 390, 391; 1897b, 4, 6, 18, 20, 22, 29, 30, 31, 32, 33 (in *Tinca vulgaris*; *Barbus fluviatilis*).—Klein, 1905, 15; 1905, 73.—Kowal., 1894, 2; 1894, 222.—Kroyer 1846–53a, 367 (in *Tinca vulgaris*).—Linst., 1873, 1 (larva = *Cercariaeum paludinae* impure inermes).—Looss, 1893b, 815; 1894a, 2, 24–33, 42, 48, 86, 113, 122, 123, 124, 125, 126, 127, 135, 136, 137, 140, 148, 150, 157, 158, 166, 167, 173, 177, 178, 191, 192, 195, 207, 208, 211, 212, 213, 215, 218, 231, 232, 239, 249, 257, 262, 264, 266, 269, 270, 273, 274, 276, pl. 1, figs. 4–7, pl. 4, figs. 81–91, pl. 6, fig. 122, pl. 9, fig. 190 (in *Abramis brama*; *Tinca vulgaris*) (includes *Fasc. tincae*, 1790; *D. ferruginosum*, 1877); 1896, 83; 1899b, 598 (type of *Asymphyloglora*); 1902m, 770, 771.—Luehe, 1900, 487.—Moul., 1856a, 50.—Mueh., 1898, 25, 91, fig. 8a.—Odhn., 1905, 322.—Sieb., 1835, 65, 66, 82.—Sons., 1897, 252.—Stiles & Hass., 1898a, 92, 93.—Stoss., 1886, 41; 1886, 62 (to *Echinost.*).—Wagener, 1857, 44.

DISTOMA—Continued.

- perlatum* var. *exspinosum* Hausmann, 1896a, 390-391 (in *Barbus fluviatilis*; Switzerland); 1897b, 29-34.
- permictus* (Braun, 1901) Stoss., 1904, 2.
- perniciosum* Taylor, 1884, 53.—Caræus, 1888a, 35ff.—Corlette, 1897a, 146.—Dunglison, 1893, 338.—Jamieson, 1897b, 147 (syn. of *D. sinense*).—Laspeyres, 1904a, 12.—Lockwood, 1901, 2. ed., 821.—Tyson, 1903, 3. ed., 1180 (syn. of *D. sinense*).—See *Clonorchis*.
- personatum* Poir., 1855, 11-12, pl. 23, fig. 5, pl. 26, fig. 4, host unknown, Gulf of Mexico.—Buttel-Reepen, 1902, 167, 172, pl. 1, fig. 15.—Darr, 1902, 666, 671.—Lœnnberg, 1891, 71.
- petalosum* Lander in Looss, 1902m, 454 (probably identical with "*D. auriculatum* Wedl of Linton, 1897, 521." from *Acipenser rubicundus* and probably belongs to *Bunodera*).—See also *lintoni*.
- phasiani galli* Dies., 1855, 64 (*D. dimorphum* Wagener).—Braun, 1892a, 735; 1893a, 874.
- philocholum* Crep., 1845, 330 (in *Delphinus phocæna*, liver).
- philodryadum* West. 1896, 28 Feb., 322-324, pl. 11 (in *Philodryas schottii*; England).—Johnston, 1901, 337.—Luehe, 1900ee, 743.
- philomela* Rud., 1819a, 120 (in *Motacilla philomela*; C. E. V.).—Dies., 1850a, 361 (syn. of *D. macrostomum*).—Duj., 1845a, 443.—Stoss., 1892, 183 (syn. of *D. macrost.*); 1898, 23.
- phoxini* Linst., 1896i, 378-379, fig. 9, a larva in *Phoxinus lævis*.
- phryganææ* Linst., 1877b, 185 (in *Phryganea grandis*); 1878a, 296 (in *Ph. gr.*); 1887, 100.
- physæ fontinalis* Dies., 1855a, 400 (to *Cercariæum*) based on Baer, 1827, 656 (in *Physa fontinalis*).
- physophoræ* Kœlliker, 1849c, 53, based on Fil., 1843, 66, pl. 5, fig. 11 (in *Physophora tetrasticha*; Naples).—Dies., 1850a, 374 (syn. of *D. geniculatum*).—Mont., 1893, 124.
- pictum* Crep., 1837, 313, 316 (in *Ciconia alba*); 1846, 135.—Ben., 1868, 298.—Braun, 1893a, 874; 1901, 260; 1901, 896; 1902b, 86, 87, 88, fig. 49 (includes *D. singulare* Mol., 1858; *Stomylus* Looss, 1899b, 629; *Stomylotrema* Looss, 1900, 602) (to *Stomylotrema*).—Dies., 1850a, 397.—Stoss., 1892, 185.
- pinnarum* Wagener, 1857, 26 (in *Gasterosteus*).
- pinnatum* Will.-Suhm. (1873), 341.—Thomas, 1882, 447.
- piriforme* Crep., 1846, 142 (in *Anas fusca*, *A. glacialis*), (see *D. pyriiforme* Crep., 1837).—Braun, 1901, 259-260.
- pittacium* Braun, 1901, 947-948 (in *Strepsilas interpres*); 1902b, 146-147.—Nicoll, 1906, 521, 522.
- planicolle* Rud., 1819a, 682, 686-687 (in *Pelecanus sula*; Brazil) (to (*Echinost.*)).—Brand., 1892, 506 (to (*Echinost.*)).—Braun, 1901, 561, 567-568; 1902b, 28, 29, 30, 31 (to *Anoicost.*) (includes Brand., 1892, 506; Duj., 1845a, 430).—Dies., 1850a, 326 (syn. of *Monost. echinostomum*).—Duj., 1845a, 430-431.—Mont., 1892, 710.
- planorbis carinati* Fil., 1857c, 13-14, pl. 2, figs. 12-13; 1857 or 1859, 211-212, pl. 2, figs. 12-13.—Dies., 1858d, 282 (to *Cercariæum*).—Linst., 1873, 7; 1877, 14.—Looss, 1894a, 41.
- planorbis cornei* Linst., 1877, 187.
- plattææ* (Mueller, 1784) Zed., 1803a, 216.—Dies., 1850a, 352 (syn. of *D. areolatum*).—Rud., 1809a, 402 (syn. of *D. areolatum*).
- platypurum* Mueh., 1896, 267-270, figs. 6, 13-14 (in *Harelda glacialis*) [*D. laticolle* Rud. of Mueh.: East Prussia]; 1897, v. 243-279, pl. 4; 1897, 127-128; 1897, 478-479; 1898, 16, 25, 96, 97, 98.—Braun, 1901b, 33; 1902b, 11, 15, 18.—Looss, 1899b, 573-574 (type of *Psilost.*).
- pleroticum* Braun, 1899e, 631 (in host?; Brazil); 1901b, 13, 17.—Luehe, 1899, 529.
- plesiotomum* Linst., 1883, 305-306, pl. 10, fig. 48 (in *Perdix græca*; Turkestan); 1886, 29.—Braun, 1892a, 578, 700, 711, 734; 1899b, 714; 1901, 946; 1902b, 109, 112, 119.—Jacoby, 1900, 10, 11.—Looss, 1899b, 634 (to *Dicrocœlium*).—Stoss., 1892, 152.

DISTOMA—Continued.

- pleuronectis maximi* Dies., 1855, 64 based on Bellingham, 1844a; 1858e, 340 (see Bellingham, 428), renamed *D. microcotyle*.
[*plumbeum* D. Valle, (a tunicate).]
- poirieri* Stoss., 1895, 227 (*D. gelatinosum* of Poir., 1885); 1904, 3.—Braun, 1899e, 631 (in *Emys europæa*); 1899b, 716; 1901b, 13, 15, 16, 17, 19, 30.—Looss, 1899b, 567.—Luehe, 1899, 528, 529.
- polonii* Mol., 1859, 291 (in *Caranx trachurus*; Batavii); 1861, 219.—Braun, 1892a, 576.—Carus, 1884, 126.—Dies., 1859c, 435.—Mont., 1893, 191.—Olss., 1868, 29; 1876, 15.—Sons., 1890, 142 (in *Caranx trachurus* L.).—Stoss., 1886, 38; 1899, 16.
- polyclinorum* Pag., 1862, 306, pl. 29, fig. 4 (in *Polyclinum*; Golf von Spezia).
- polymorphum* Fil., 1837a, 337–338, figs. 8–14 (in *Planorbis submarginata*); 1855b, 23.—Dies., 1850a, 296 (renamed *Cercaria brachyura*).—Moul., 1856a, 213 (syn. of *Cercaria brachyura*).
- polymorphum* (Rud., 1802) Rud., 1809a, 363–364 (in *Muræna anguilla*), includes *Fasc. anguillæ* 1790; 1814a, 101; 1819a, 95, 369–370.—Braun, 1891d, 421; 1892a, 642, 736, 765.—Carus, 1884, 132.—Cobbold, 1860a, 23 (in *Anguilla vulgaris*); 1879b, 458 (in *Esox lucius*).—Dies., 1850a, 340 (includes *D. anguillulæ* Abildg. ?, *D. anguillulæ* Zed., *Fasc. anguillæ*); 1858e, 333 (in *Anguilla vulgaris*) (includes Dies., 1850a, 340; Wedl, 1855, 383, 394, pl. 2a, 17, 400, 408, pl. 1b, 7; Stein, pl. 7, fig. 23).—Duj., 1845a, 468.—Juel, 1889, 39.—Kroyer, 1846–53a, 641 (in *Anguilla migratoria*).—Leeuwenhoek, —, 344.—Linst., 1873e, 99.—Nord., 1840, 618 (syn. of *Fasc. anguillæ*).—Olfers, 1816, 45.—Risso, 1826, 262.—Stoss., 1902, 562.—Wedl, 1855, 383–384, pl. 2a, fig. 17; 400, pl. 1b, fig. 7.
- polyoon* Linst., 1887, 103–104 (in *Gallinula chloropus*).—Braun, 1902b, 155–156, fig. 98.—Dies., 1850a, 340.—Stoss., 1892, 186.
- polyorchis* Stoss., 1889, 24–25, fig. 61 (in *Corvina nigra*; Triest).—Braun, 1892a, 583, 673, 698, 700, 728; 1895b, 129; 1902b, 22.—Buttel-Reepen, 1902, 202.—Linst., 1901, 415, 417, 460, figs. 363, 364, 365 (in *Cynoscion regalis*); 1905, 328, 334, 366 (in *Cyn. reg.*). 385.—Looss, 1894a, 178.—Mont., 1893, 82, 84, 85, 86, 95, 148, 149; 1896, 166, to (P.).—Ofenheim, 1900, 160.—Sons., 1890, 136.—Stiles & Hass., 1895a, 737–742; 1895h, 162–163; 1898a, 92, 97 (type of *Pleorchis*).
- pontaliei* Stoss., 1892, 178, for *pontalliei* (Dist.).
- pontalliei* Cobbold, 1860a, 10 (in *Ardea minuta*) (*D. cladocalium* Dies., renamed).—Stoss., 1892, 178 (*pontaliei*) (syn. of *D. cladocalium*).
- porrectum* Braun, 1899b, 714 (in *Saurophaga saurophaga*; New Guinea); 1902b, 109.—Jacoby, 1900, 10, 11.—Looss, 1899b, 634.
- pristiophori* Johnston, 1902, 326–330, pl. 13, figs. 1–7 (in *Pristiophorus cirratus* Lath.).—Linst., 1903, 354.
- pristis* Deslongchamps, in Lamouroux, 1824, 563 (in *Marsouin*); 1824, 281.—Braun, 1892a, 579, 583, 584, 728.—Cobbold, 1860a, 36 (to *Echinost.*).—Dies., 1850a, 390 (in *Merlangus communis*; Normandy).—Duj., 1845a, 433.—Kroyer, 1838–40a, 606 (in *Merlangus vulgaris* Cuv.).—Lamouroux, 1824a, 563.—Looss, 1894a, 204, 218; 1899b, 581 (to *Stephanost.*).—Mont., 1888a, 14; 1893, 86, 88, 105, 107, 108, 109.—Stoss., 1886, 36, 45–46, pl. 8, fig. 33.—Vaullegeard, 1901, 143–146, 1 fig.; 1901, v. 8, 640.
- pseudocchinatum* Olss., 1876, 21–22, pl. 4, figs. 45–49 (in *Larus marinus*; Scandinavia).—Braun, 1893a, 874.—Kowal., 1896d, 253 (3) (in *Dominicanus marinus*), to (*Echinost.*).—Mont., 1888a, 14; 1893, 86.—Stoss., 1892, 166 (to *Echinost.*).
- pseudostoma* Will.-Suhm, 1870, 11–12, pl. 11, fig. 2 (in *Alligator lucius*); 1871, 185–186, pl. 11, fig. 2.—Brand., 1888a, 15.—Mont., 1892, 34; 1892, 715.—Pavesi, 1881, 294.—Poir., 1886, 334 (to *Diplost.*).—Stoss., 1895, 219 (in *Alligator mississippiensis*; Florida).
- pudens* Linst., 1900a, 269, 283, 290–291, pl. 37, figs. 40–47 (in *Paralichthys dentatus*; Woods Hole, Sept.); 1901, 415, 420, 482; 1905, 328, 334, 372, 413 (in *Paralichthys albiguttus*, *Rachycentron canadus*).
- pulchellum* Rud., 1819a, 94, 367–368, 595 (in *Labrus cynædus*; Naples).—Bargallo & Drago, 1903, 410 (in *Gobius jozo*; Catania), to (*Dicrocoelium*).—Carus, 1884, 131.—Cobbold, 1860a, 22.—Dies., 1850a, 338–339.—Duj., 1845a,

DISTOMA—Continued.

- 462.—Looss, 1901, 399.—Mol., 1859, 844.—Odhn., 1901, 484, 493, 494; 1902, 160–161 (to *Helicometra*).—Sons., 1891, 257–258 (in *Tinca vulgaris*).—Stoss., 1886, 54; 1893, 45–46.—Also reported for *Blennius ocellaris*, *Labrus mixtus*.
- pulcherrimum* (Weyenbergh, 1876) Weyenbergh, 1878, v. 3, 31–38 (in *Hypostomus plecostomus*; Argentina); 1878, 354–361; 1878, 554–561; 1880, 31–39.—Braun, 1893a, 871.—Looss, 1885b, 55.
- pulicis* Linst., 1892, 333–334, pl. 15, fig. 19 (in *Gammarus pulex*).—Braun, 1891b, 182.
- pulmonale* Bælz, 1883a, 236–237, fig. 3 (in *Homo*).—Anders, 1903, 6 ed., 1245.—Bl., 1888a, 627 (syn. *D. ringeri*).—Brand., 1888a, 50; 1890a, 577; 1891b, 265.—Braun, 1892a, 664, 758; 1893a, 876, 882; 1893b, 185, 186; 1901, 332; 1903, 3 ed., 155 (syn. of *Paragonimus westermani*).—Cobbald, 1884g, 976.—de Does, 1903, 409–412.—French, 1896a, 644.—Gamb., 1896, 63, 70.—Hahn & Lefèvre, 1884a, 546 (syn. of *D. ringeri* Cobb.).—Huber, 1896a, 576–577.—Janson, 1897a, 454–455 (in dogs, cats, swine).—Janson & Tokishige, 1892, 349, 351.—Katsurada, 1899a, 8–29; 1900, 506.—Katsurada & Fijiki, 1899a, 1–18, 8–29 (pathology).—Katsurada & Saki, 1899a, 141–185 (treatment).—Kholodk., 1898, 26, 31, pl. 11, figs. 18–21; 1899a, 152.—Kirimoto & Ijima, 1892a, 718–720.—Leuck., 1889, 404–440, figs. 181–190.—Linst., 1890f, 178 (syn. of *D. westermani*).—Looss, 1894a, 118, 142, 159, 180, 181, 186, 206; 1899b, 560; 1905, 84 (syn. of *Paragonimus westermani*); 1905m, 280.—Manson, 1895, 54–55; 1901 (Gibson), 541 (syn. of *D. ringeri*); 1903, 3 ed., 631 (syn. of *Paragonimus westermani*).—Miyake & Matzui, 1894, 1–6, pl. 1.—Moniez, 1896, 144.—Mont., 1888, 54; 1893, 13, 33, 35, 38, 39, 83, 87, 95, 102, 105, 106, 107, 155, 157.—Mosler & Peiper, 1894, 178–179.—Otani, 1888.—Rail., 1890, 143.—Remy, 1883, 525–527, fig. 2.—Rev. sci., 1890, 189.—Schneidemuell, 1896, 301–302.—Shaw, 1901, 600.—Simon, 1896, 225; 1897, 209, 224, 259.—Stiles & Hass., 1900a, 567.—Stoss., 1892, 32 (to *Mesogonimus*).—Taniguchi, 1903, Dec., 100, 105.—Taylor, 1884, 44–48, 51–52, fig. 1.—Vierordt, 1898, 158.—Vincent, 1889, 184; 1890, 189–190; 1890, 80.—Ward, 1895, 244 (syn. of *D. westermani*), 328 (in *Homo*), 341 (in *Canis familiaris*); 1903, 867 (syn. of *Paragonimus westermani*).—Weichselbaum, 1898, 315.—Wolf, 1903, 612.—Wood & Fitz, 1897, 336.—Yamada, 1899, (pathology); 1900 (prophylaxis).—Yamagiwa, 1890a, 457 (seu *cerebrale*); 1891a; 1891b; 1891c.
- pulmonale colubri natricis* Viborg, 1795, 243.—Dies., 1850a, 348 (syn. of *D. naja*).—Rud., 1809a, 434.—Ward, 1895, 244 (syn. of *D. westermani*).
- pulmonar* La Clínica de Málaga, 1883, 308, for *pulmonale*.
- pulmonis* Kiyona, Suga & Yamagata, 1881, teste Ijima, 1889b, 148.—Braun, 1903, 3 ed., 155 (syn. of *Paragonimus westermani*).—Ijima, 1889b, 148.—Inouye, 1903, 120.—Katsurada, 1900d, 506 (syn. of *D. westermani*).—Ward, 1895, 328 (in *Homo*), 341 (in *Canis familiaris*); 1903, 867 (syn. of *Paragonimus westermani*).
- pulmonum* (Bælz, 1880) Tomono Hidekata, 1883 (autopsy).—Inouye, 1903, 120.—Inouye & Katsurada, 1893, 798; 1897, 995 (in brain).—Looss, 1905, 84 (syn. of *Paragonimus westermani*).—Riusai, 1884 (treatment).—Tomono, 1883, no. 96.—Yamagiwa, 1890.—Yamagiwa & Inouye, 1890a, 20 Sept., —; 5 Oct., —; 20 Oct., —; 1890, 5 Nov., 30–40; 20 Nov., 26–38.
- pulvinatum* Braun, 1899, 630 (in *Flusschildkroeten*; Brazil); 1901b, 24–26, fig. 18.—Looss, 1902m, 515, 516.—Odhn., 1902, 42; 1902, 153.
- punctatum* (misprint for *D. punctum* Zed., 1800a, 184) Dies., 1850a, 329 (syn. of *Monost. cochleariforme*).—Harz, 1881c, 11.
- punctum* Zed., 1800a, 164, 183–184 (in *Cyprinus barbus*; Europe); 1803, 217.—Bremser, 1824, 134.—Cobbald, 1860a, 28 (in *Barbus communis*).—Crep., 1837, 326; 1839, 289.—Dies., 1850a, 377 (includes Bremser, 1824c, pl. 9, figs. 21, 22; Duj., 1845a, 463; Rud., 409, 1819a, 112).—Duj., 1845a, 463.—Harz, 1881c, 5, 10, 11 (*punctatum*), 152, 154.—Hausmann, 1896a, 391; 1897b, 30.—Kroyer, 1846–53a, 333 (in *Barbus fluviatilis* Ag.).—Nord., 1832a, 88.—Olfers, 1816, 46.—Rud., 1809a, 327, 366, 409–410; 1819a, 112–113.—Stoss., 1886, 54.
- pungens* Linst., 1894, 333–334, fig. 10 (in *Podiceps minor*; Seeburger Sea).
- pusillum* (Braun, 1790) Zed., 1803a, 210.—Braun, 1893a, 870.—Cobbald, 1860a, 7 (in *Erinaceus europæus*); 1879b, 295.—Crep., 1825, 55–57; 1837, 310, 326; 1841, 78.—Dies., 1850a, 360 (to *Fasc.*).—Duj., 1845a, 438–439.—Harz, 1881c, 3 (*pusillum*).—Olfers, 1816, 30, 44.—Rud., 1809a, 163, 384–386; 1819a, 104, 119 (pars, syn. of *D. aluconis thoracicum*).—Stoss., 1892, 33, (to *Agamodist.*).

DISTOMA—Continued.

pussillum Harz, 1881c, 3 (for *pussillum*).

putorii Mol., 1858, 131 (in *Mustela putorius*; Patavii); 1861, 224, pl. 5, fig. 4.—Braun, 1893a, 870 (in *Fœtorius putorius*).—Cobbold, 1860a, 9.—Dies., 1858e, 354 (in *Mustela putorius*).—Erc., 1881e, 56; 1882a, 292.—Linst., 1875, 192, pl. 2, fig. 14.—Stoss., 1892, 34 (to *Agamodist.*).—Also reported for *Putorius vulgaris*.

putorii (Gmelin, 1790) Rail., 1893a, 366.

pygmæum Levin., 1881a, 73–75, pl. 3, fig. 3 (in *Somateria mollissima*; Egedesminde).—Braun, 1892a, 578, 583, 586, 642, 720, 721, 736; 1900, 234.—Jægers., 1901, 982 (type of *Spelotrema*).—Looss, 1899b, 620; 1902m, 704, 705, 706, 784 (in *Somateria mollissima*).—Luehe, 1899, 537.—Mont., 1893, 43, 61, 83, 95.—Nicoll, 1906, 522, 523, 524.—Odhn., 1900, 13; 1905, 314 (to *Spelotrema*).—Stiles & Hass., 1902d, 20 (type of *Spelotrema*).—Stoss., 1892, 147.—Ward, 1901, 184.

pygmæum similis (Jægers., 1900) Looss, 1902m, 784.

pyramidum Looss, 1896b, 76–78, pl. 6, fig. 52 (in *Rhinolopus hippocrepis* Bonap.; Ghizeh); 1898, 453, 454, 456, 457, 458, figs. 1, 4.—Stiles, 1901, 200.

pyriforme Crep., 1837a, 316 (in *Eisente*); 1847, 142 (*piriforme*).—Dies., 1850a, 397 (in *Anas fusca*, *A. glacialis*).—Stoss., 1892, 186.

pyriforme Lint., 1900, 269, 279, 292–293, pl. 38, figs. 52–59 (in *Palinurichthys perciformis*; Woods Hole, Aug.); 1901, 415 (in *Cynoscion regalis*. *Monticirrus saxatilis*, Pal. *percii.*), 422, 453, 454, 457, 458, 460, 462, 483; 1905, 328, 334, 352, 360, 380, 382 (in *Brevoortia tyrannus*, *Lagodon rhomboides*, *Menidia menidia*).

pyxidatum Bremser in Rud., 1819a, 678–679 (in *Crocodilus sclerops*; Brazil).—Cobbold, 1860a, 19.—Dies., 1850a, 358 (in *Champsia sclerops*; Brazil).—Duj., 1845a, 452.—Leuck., 1863a, 460.—Rud., 1819a, 678–679.—Stoss., 1895, 231–232.—Also reported for *Caiman sclerops*, *Jacare sclerops*.

quietum Staff., 1900, 403–406, fig. 4 (in frogs; apparently Canada).—Type of *Glypthelminis*.

rachion Cobbold, 1858b, 158, pl. 31, figs. 9–10 (in *Morrhua ægelfinus*); 1860a, 25.—Braun, 1892a, 642.—Lint., 1898, 538–539, pl. 53, figs. 3–7; 1901, 415 (in *Gadus callarias*), 422, 476.—Mont., 1893, 82, 85, 86.—Nicoll, 1907, 77, 79 (syn. of *Lepodora rachiaea*).—Odhn., 1905, 332 (type of *Lepodora*) (*rachiaea*).—Stoss., 1886, 43 (in *Gadus morhua*).

radiatum Duj., 1845a, 427–428 (in *Carbo cormoranus* or *Pelecanus carbo*), to (*Echinost.*), from *Vien. Mus.*—Dies., 1850a, 383 (syn. of *D. echinatum*).—Stoss., 1892, 167 (syn. of *Echinost. ech.*); 1898, 52.

radula Duj., 1845a, 433–434 (in *Lymnæus palustris*; Rennes), to (*Echinost.*).—Dies., 1850a, 395.—Fil., 1854a, 17.—Moul., 1856a, 203.

ragazzi Linst., 1903t, 354, for *ragazzii*.

ragazzii Setti, 1897, 8–12, pl. 8, figs. 6–7 (in *Squalus*; Eritrea), to (*Polyorchis*).—Ariola, 1899, 7.—Linst., 1903, 354 (*ragazzi*).—Looss, 1899b, 642, 644, 731, 737 (type of *Syncelium*).—Par., 1896, 3, *nomen nudum* (in *Squalus* sp.; Red Sea).

rajæ Rud., 1809a, 435 (*D. rajæ intestinale* Viborg).

rajæ intestinale Viborg, 1795, 242.—Rud., 1809a, 435 (*D. rajæ*).

ralli Rud., 1819a, 120 (in *Rallus aquaticus*; M. C. V.).—Dies., 1850a, 339 (syn. of *D. holostomum*).—Duj., 1845a, 447.—Stoss., 1892, 145 (syn. of *Cladocœlium holost.*).

ramlianum Looss, 1896b, 36–44, pl. 3, figs. 17–19 (in *Caméléon*; Ramleh); 1898, 461; 1899b, 589–590 (type of *Lepoderma*).—Luehe, 1899, 531.—Stoss., 1904, 2.

ranæ esculentæ Dies., 1850a, 388 (syn. of *D. retusum*), based on Valentin, 1841, 54.

rarum Ben., 1858a, 1861a, 178 (in *Cyprinus dobula*).—Fraip., 1880c, 417.

rastellus Olss., 1876, 16–17, pl. 3, figs. 31–36 (in *Rana temporaria*).—Braun, 1892a, 736; 1893a, 881.—Linst., 1887, 97, 98, 101, 102 (syn. of *D. endolobum* Duj.).—Looss, 1894a, 82, 84, 85 (syn. of *D. end.* Duj.).—Mont., 1893, 94, 102 (*rastellum*).—Stoss., 1889, 66.

rathonisi Simon, 1896, 182, 192, misprint for *rathouisi*.

rathonisi Huber, 1894a, 2 (contents), 1896a, 575 (misprint for *rathouisi*; syn. of *D. buskii*).—Simon, 1896, 182, 192; 1897, 223.

DISTOMA—Continued.

- rathouisi* Poir., 1887, 203–211, pl. 13, figs. 1–7 (in Homo); 1888, 186–187; 1888, 49.—R. Bl., 1891, 610 (syn. of *D. buski*).—Braun, 1892a, 568 (*rathouisii*), 602, 635, 638, 682, 684, 699, 704, 717, 719, 733; 1893a, 875, 882; 1895b, 141–142 (*rathouisi*), fig. 57 (probably identical with *D. buski*); 1903, 3 ed., 154, fig. 100 (*rathouisi*); 1906, 157–160, fig. 91.—Gamb., 1896a, 63, 70 (*rathouisii*).—Hoyle, 1890, 538.—Ijima, 1889b, 133 (*rathouisi*).—Kholodk., 1898, 26, 30, 31, pl. 11, fig. 17.—Leuck., 1889, 328–336, figs. 150, 152, 153.—Moniez, 1896, 86, 117–118.—Mont., 1893, 33 (*rathouisii*), 83, 84 (*rathouisi*), 102, 107.—Stoss., 1892, 27–28 (syn. of *D. crassum*) (in Homo; China; India).—Ward, 1895, 328 (in Homo).
- rathouisii* Braun, 1892a, 568, for *rathouisi*.
- rathousii* Mont., 1893, 33, for *rathouisi*.
- raynerianum* Nardo, 1827, 68–69 (in *Luvarus imperialis*; Venice); 1833, 524.—Carus, 1884, 125.—Cobbold, 1860a, 28; 1879b, 460.—Dies., 1850a, 376.—Mont., 1891, 500, 520.—Stoss., 1886, 15; 1891, 112.—Also reported for *Proctostegus* prototypus.
- receptaculum* Cobbold, 1860a, 29 (*D. labracis* Duj. renamed, in *Labrax lupus*).—Odh., 1901, 514.—Stoss., 1898, 46.
- recurvatum* Linst., 1873, 101, 105, 106, pl. 5, fig. 1 (in *Anas marila*).—Braun, 1892a, 569; 1893b, 183.—Kowal., 1894, 3; 1895, 355–356, figs. 9–11, 12c; 1895g, 1, 15), 41, 55; 1896d, (7), 257 (in *Anas boschas*; *Fuligula marila*; *Dublany*), to (*Echinost.*).—Sons., 1897, 252.—Stoss., 1892, 162 (to *Echinost.*).—Villot, 1878, 25.
- recurvum* Duj., 1845a, 410 (in *Mus sylvaticus*; Rennes), to (*Brachylaimus*).—Braun, 1899g, 492; 1901e, 339–341 (includes *D. musculi* Rud.; Duj.; Dies.), 341.—Cobbold, 1860a, 9; 1879b, 316.—Dies., 1850a, 389.—Stoss., 1892, 19–20 (in *Mus sylvaticus*; Rennes).
- refertum* Mueh., 1898, 18 (in *Cypselus apus*; East Prussia), 26, 84, 86–87, figs. 5, 12.—Braun, 1902b, 100, 109 (= *clathratum* Desl.).—Jacoby, 1900, 10, 11.—Looss, 1899b (to *Dicrocoelium*).—Rail., 1900, 239 (syn. of *Dicrocoelium clathratum* Deslong.).
- reflexum* Crep., 1825a, 54 (in *Cyclopterus lumpus*; Mar. and Apr.).—Bellingham, 1844a, 425.—Ben., 1858a, 1861a, 178; 1870, 51, pl. 5, fig. 3.—Braun, 1892a, 578, 699, 700, 734, 737; 1893a, 873, 910.—Cobbold, 1860a, 24.—Dies., 1850a, 373 (includes *D. cyclopteri* in *Cyclopterus lumpus*; Greifswald); 1858e, 342 (in *Cyclopterus lumpus*).—Duj., 1845a, 467.—Hausmann, 1897b, 4, 6, 20, 22 (in *Trutta salar*).—Jacoby, 1900, 11.—Kroyer, 1838–40a, 613 (in *Cyclopterus lumpus*).—Mont., 1893, 95, 102.—Nicoll, 1907, 73, 74.—Odh., 1901, 484, 485, 506, 508, 509, 512; 1905, 321.—Olss., 1868, 52.—Stoss., 1886, 28.
- reinhardi* Linst., 1903, 280–282, fig. 16 (in *Astacus leptodactylus*).
- renale* Fil., 1855b, 19–20, 23, pl. 2, fig. 21 (in *Helix adspersa* near Turin); 1857, 435–436, fig. 21, pl. 2.—Dies., 1858d, 266 to *Cerc.* (*Gymnocephala*).—Erc., 1881e, 64, 65; 1882a, 300, 301.—Moul., 1856a, 164, 216 (to *Cerc.*) (in *Helix aspera* at Turin).—Par., 1894, 160.
- reniferum* Looss, 1898, 461 (*D. unicum* Looss, not Mol., renamed); 1899b, 590 (type of *Astia*); 1900 (type of *Astiotrema*).—Braun, 1901b, 37.—Luehe, 1899, 531 (*reniforme*).
- reniforme* Luehe, 1899, 531 (syn. *unicum* Looss, nec Mol.), 532 for *reniferum* Looss.—Stoss., 1904, 2.
- repandum* Rud., 1819a, 681 (in *Rana* sp.; Brazil).—Dies., 1850a, 355.—Cobbold, 1860a, 19 (in *Cystignathus pachypus*; Brazil).—Duj., 1845a, 454.—Stoss., 1889, 71 (in *Cystignathus ocellatus*).
- reticulatum* Wright, 1879, 58–59, pl. 1, fig. 6 (in *Ceryle alcyon*); 1879, 7.—Braun, 1892a, 570, 698; 1893a, 876.—Looss, 1894a, 171; 1899b (= *Fasc.*).—Stoss., 1892, 154.
- reticulatum* Looss, 1885b, 40–57, 59 (*retikulatum*), pl. 23, figs. 16, 20–29 (in “Wels;” Costa Rica); 1885a, 427–444; 1894a, 137, 138, 171; 1899b, 536, 585, 650, 651, (to *Clinost.*).—Biehringer, 1888a, 230, 231, 232, 233.—Bock, 1886a, 544.—Braun, 1892a, 603, 607, 608, 611, 615, 640, 650, 651, 664, 677, 688, 735, 741, 742; 1892, 46; 1893a, 871; 1899g, 484, 485, 486, 487, 491; 1900h, 2, 3, 4, 5, 6, 9, 13, 43, 44; 1900, 26, 31; 1902b, 129.—Jackson, 1888, 644, 645.—Linst., 1890f, 183.—MacCallum, 1899, 705, 707.—Mont., 1888a, 15, 30, 32, 38, 43, 54, 57, 92 (type of *Mesogonimus*); 1893, 18, 44, 65, 66, 83, 85, 88, 90, 91, 102, 106, 107, 155, 156.—Rossbach, 1906, 377.—Stiles & Hass., 1898a, 86 (see *D. dictyotus*) (type of *Mesogonimus*).—Reported for *Acipenser* sp.

DISTOMA—Continued.

- reticulatum* Poir., 1886, 39, pl. 3, fig. 8 (in *Axinurus dugesii*).—Braun, 1899g, 491 (syn. of *Clinost. marginatum*); 1900h, 44, 45.
- retikulatum* Looss, 1885b, 59, for *reticulatum*.
- retroconstrictum* Srámek, 1901, 95, 108, fig. 62 (syn. *Monost. constrictum*) (in *Abramis brama* Cuv.); 1902, 21 Apr., 173.
- retroflexum* Mol., 1859, 290 (in *Belone acus*; *Batavii*); 1861, 213.—Braun, 1893a, 910; 1893b, 184 (in *Bel. vulgaris*).—Carus, 1884, 124.—Dies., 1859c, 432.—Luehe, 1900, 488, 492; 1901, 480.—Stoss., 1883, 117 (in *Bel. acus*); 1886, 16; 1891, 216.
- retusum* Duj., 1845a, 405–406 (in *Rana temporaria*; *Rennes*), to (*Brachycœlium*).—Baillet, 1866b, 96.—Ben., 1858a, 1861a, 92–96, 178, 186, pl. 11, figs. 9–27.—Braun, 1892a, 767; 1893a, 860, 866, 881.—Cobbold, 1860a, 18 (in *Rana esculenta*; *Valentin*).—Dav., 1877a, lxxi, fig. 34.—Dies., 1850a, 388 (includes *D. clavigerum*; *D. ranæ esculentæ*); 1858, 348 (in *Rana halcina*); 1859c, 434 (cf. *Cerc. armata minor* Ben., 1858a, 98, pl. 11, figs. 9–27, in *Lymnæus stagalis*; *Belgium*).—Erc., 1881e, 73, 82, 84, 85, 89; 1882a, 309, 318, 320, 321, 325.—Fraip., 1880c, 417.—Gamb., 1896a, 72.—Hahn & Lefèvre, 1884a, 516 (of “*Rud.*”).—Leidy, 1851, 207; 1856, 44.—Linst., 1887, 97, 98, 99.—Looss, 1894a, 82, 84 (of Ben. is syn. of *D. endolobum*), 85, 208; 1899b, 611.—Luehe, 1899, 536.—Mont., 1893, 43.—Pag., 1857, 41.—Staff., 1902, 724.—Stiles, 1901, 197, 199, 201.—Stoss., 1889, 63.—Also reported for *Phryganeidæ* larvæ.
- rhatonisii* Simon, 1897, 223, misprint for *rathouisii*.
- rhizophisæ* Mont., 1888, 199 (for *rhizophysæ*).
- rhizophysæ* Studer, 1878, 12–13, pl. 1, figs. 2, 7 (in *Rhizophysa conifera*).—Braun, 1893a, 869; 1893d, 468.—Mont., 1888, 199 (*rhizophisæ*); 1893, 123.
- [*rhodopyge* Sluiter, 1898 (a tunicate).]
- rhombi* Ben., 1870, 72 (in *Rhombus maximus*).—Braun, 1893a, 872.
- richiardi* Lopez, 1888, 137–138.—Looss, 1899b, 552, 736; 1901, 204, 206; 1902m, 482, 791 (*amphitypie*), 846, 854.
- richardii* Brand., 1891b, 267 (for *richiardi*).
- richiardi* Mont., 1891, 500 (for *richiardi*).
- richiardi* Lopez, 1888a, 137–138 (in *Acanthias vulgaris*; *Risso*).—Ariola, 1899, 8.—Brand., 1891b, 267 (*richiardi*).—Braun, 1892a, 698, 715.—Crety, 1892b, 373 (*vitelline nuclei* of); 1892c, 396, 399 (*richiardi*); 1892, 24–26, fig. 2; 1892, (92–97); 1893a, 380, 382–384 (*richiardi*).—Linst., 1888, 46; 1903, 354.—Looss, 1894a, 134, 145, 166, 179, 189, 190, 200, 204, 210, 211, 224; 1902m, 482 (*richiardi*), 791, 846, 854, 855 (type of *Probolitrema*).—Mont., 1889, 132–134; 1889, 612; 1891, 500 (*richiardi*); 1892, 5, 6, 7 (*richiardi*); 1892, Oct. 7, 188 (*richiardi*); 1893, 17, 19, 32, 33, 34, 40, 41, 42, 43, 49, 50, 61, 62, 65, 66, 67, 68, 69, 71, 72, 76, 78, 79, 82, 83, 84, 85, 86, 87, 88, 90, 91, 94, 95, 96, 97, 98, 99, 102, 103, 106, 107, 109, 110, 112, 114, 117, 120, 122, 135, 139–148, 209, pl. 1, fig. 10, pl. 5, fig. 51–55, pl. 6, fig. 87, pl. 7, figs. 91–102, pl. 8, figs. 125–130; 1899, 103; 1896, 147, 166 (*richiardi*).—Ofenheim, 1900, 147, 153, 156, 160, 163, 164, 169, 174.—Shipley & Hornell, 1905, 54, 55 (in *Rhinodon typicus*).—Sons., 1890, 135 (*richiardi*).—Stiles, 1896, 205.
- rigens* Linst., 1878a, 282 (in *Scymnodon ringens*) [apparently lapsus for *Dist. ligula* Ben., 1871a, 12], 360 (*ringens*).—Ariola, 1899, 8.—Mont., 1893, 53.
- ringens* Rud., 1819a, 101, 385 (in *Picus tridactylus*; *Mus. Vien.*).—Braun, 1893a, 877; 1893d, 467; 1901, 561, 568.—Dies., 1850a, 361 (syn. of *D. macrost.*).—Duj., 1845a, 444.—Linst., 1903, 354.—Stoss., 1892, 184 (syn. of *D. macrost.*); 1898, 23.—Schlotthauber, 1860, 130.
- ringens* Linst., 1878a, 360, see *rigens*.
- ringeri* Cobbold, 1880, 139–140, pl. 10, figs. 1–3 (*Homo*); 1884g, 976.—Anders, 1903, 6 ed., 1245 (syn. of *D. pulmonale*).—R. Bl., 1888a, 627–630, 631, fig. 326; 1891, 610 (syn. of *D. westermanni*).—Braun, 1893a, 876, 877, 882; 1901e, 332; 1903, 3 ed., 155 (syn. of *Paragonimus westermanni*); 1906, 161.—Brunet, 1902a, 125.—Chedan, 1886a, 241–244.—Coplin, 1898, 339–340.—Dunglison, 1893, 338.—Eyles, 1887a, 660.—Gamb., 1896a, 63.—Giard & Billet, 1892a, 614.—Hackley, 1886, 519.—Hahn & Lefèvre, 1884a, 546–548 (syn. of *D. pulmonale* Bætz).—Huber, 1896a, 576 (syn. of *D. pulm.*).—Ijima, 1889b, 148.—Inouye, 1897c, 1–4 (in brain); 1903a, 120–135; 1904a, 617–618.—Jackson, 1888a, 653.—Katsurada, 1900, 506.—Linst., 1889, 3; 1890f, 178.—Lockwood, 1901, 2 ed., 821.—Looss,

DISTOMA—Continued.

- 1905, 84 (syn. of *Par. westermanni*).—Manson, 1880, Aug., 139–140, pl. 10, figs. 1–3; 1881, 8–9; 1881, July 2, 10–12, figs. 1–9; 1882, 55–62, figs. 1–25; 1882, July 8, 42–45; 1883, Mar. 31, 532–534; 1883, 1813; 1883, 134–138, 138–156, pls. 8–9; 1886, 241–244; 1893, 852–860, fig. 79; 1901, 541; 1903, 3 ed., 631 (syn. of *Par. westermanni*).—Moniez, 1896, 144.—Mont., 1893, 155.—Mosler & Peiper, 1894, 178.—Mouye (1904), v. 1 (1–2); 1904, v. 2, 144.—Packard, —, 523.—Rail., 1886, 296.—Rail. & Marotel, 1898, 31.—Simon, 1897, 259.—Sons., 1884, 17, 18, 19, 20, 21.—Stiles & Tayler, 1902a, Apr. 19, 45.—Stoss., 1892, 32 (syn. of *Mesogonimus pulmomale*).—Taniguchi, 1903, Dec., 100.—Ward, 1895, 244 (syn. of *D. westermanni*), 328 (in *Homo*), 341 (in *Canis familiaris*); 1903, 867 (syn. of *Par. westermanni*).—Yamagiwa, 1891, 5 Jan., 36–41; 1892, 446.—In tiger.
- ringers* Rev. Sci., 1890, 189, misprint for *ringeri*.
- robustum* Lorenz, 1881a, 583–586, pl. 19 (in *Elephas africanus*), figs. 1–6.—Braun, 1892a, 593, 603.—Mont., 1893, 82, 105, 106, 107.—Stoss., 1892, 18 (in *El. afr.*).
- rochebruni* Poir., 1886, 36–37, pl. 4, figs. 4–5 (*Delphinus delphis*).—Braun, 1892a, 673 (*rochebrunni*); 1893a, 875, 910; 1893, 354; 1900g, 251, 252, 253.—Looss, 1894a, 204; 1899b, 560 (to *Brachycladium*).—Mont., 1893, 44, 107.—Stiles, 1895m, 219, pl. 8, figs. 4, 5.—Stoss., 1892, 11 (to *Cladocœlium*).
- rochebrunni* Braun, 1892a, 637, for *rochebruni*.
- rosaceum* Nord., 1832a, 82–88, pl. 8, figs. 1–5, 11 (in *Gadus lota*; October); 1840, 617, 620 (syn. of *Fasc. eriocis*).—Ben., 1858a, 1861a, 99, 100 (syn. of *D. terecicolle*).—Braun, 1892a, 653, 757.—Cobbold, 1860a, 26; 1879b, 458.—Crep., 1837, 313, 314, 318, 321, 323.—Dies., 1850a, 364.—Harz, 1881c, 5.—Kroyer, 1838–40a, 609 (in *Lota vulgaris*).—Looss, 1894a, 5, 6 (syn. of *D. teret.*).—Moul., 1856a, 49 (seems to be only a var. of *teret.*).—Stoss., 1886, 25; 1898, 38.—Wagener, 1857, 25.
- rosarum* Cobbold, 1860a, 21; misprint for *rosaceum*.
- rosea* Ben., 1870, 1871a, 90, pl. 4, fig. 10 (in *Petromyzon omalii*; Belgium).—Linst., 1878a, 290 (in *P. fluviatilis*).
- rubellum* Olss., 1868, 40, pl. 4, fig. 89 (in *Labrus maculatus*; Scandinavia).—Braun, 1892a, 579; 1893a, 910.—Looss, 1899b, 618; 1901d, 399.—Luehe, 1899, 537.—Odhn., 1902, 59, 61.—Stafl., 1905, Apr. 11, 692.—Stoss., 1886, 20.
- rubens* Duj., 1845a, 411 (in *Sorex fodiens*, *S. tetragonurus*; Rennes) (to *Brachylaimus*).—Braun, 1901e, 342, 344 (syn. of *D. exasparum* Rud.).—Cobbold, 1860a, 6; 1879b, 296.—Dies., 1850a, 334–335 (in *Sorex daubentonii*; Rhedoni).—Stoss., 1892, 15 (syn. of *D. exasp.*).
- [*rubrum* Savigny, —, 176 (a tunicate).]
- rude* Dies., 1850a, 360–361 (in *Lutra brasiliensis*; Brazil); 1855, 66–67, pl. 3, figs. 9–10; 1858e, 341.—Braun, 1892a, 735; 1893a, 876, 877; 1899g, 492; 1901e, 327, 329, 332, figs. 12, 15, 17 (to *Paragonimus*).—Cobbold, 1860a, 7; 1859d, 363; 1879b, 298.—Kerbert, 1878a, 272.—Lamouroux, 1824, 563 [*Distome rude*].—Stiles & Hass., 1900a, 604 (to *Paragonimus*).—Stoss., 1892, 36 (in *Lut. bras.*).
- rufoviride* Rud., 1819a, 110, 406–407 (in *Muræna conger*; Naples, July).—Bellingham, 1844a, 425.—Ben., 1858a, 1861a, 178, 181, 189, 193, 195.—Braun, 1891d, 424 (in *Uranoscopus scaber*); 1892a, 705; 1893a, 879.—Carus, 1884, 125.—Cobbold, 1860a, 22 (in *Conger vulgaris*).—Dies., 1850a, 342, 371, 372 (includes *D. varium* Eysenhardt) (in *Capros aper*, Naples; *Labrax lupus*, Rhedoni; *Saurus saurus*, Naples); 1858e, 342 (in *Cong. vulg.*).—Duj., 1845a, 421.—Jackson, 1888a, 647.—Kroyer, 1846–53a, 615 (in *Anguilla conger* L.).—Lander, 1904a, 7 (to *Lecithochirium*).—Levin., 1881a, 60.—Linst., 1898, 515–517, pl. 42, 43, figs. 1–4; 1901, 415, 418, 455.—Linst., 1903, 354.—Looss, 1899b, 640 (to *Hemiurus*).—Luehe, 1901, 58; 1901, 474, 476.—Mol., 1858, 129; 1859, 827, 841, 844 (in *Scorpæna porcus*, *S. scropha*, *Anguilla vulgaris*, *Labrax lupus*, *Trigla corax*); 1861, 205–209, pl. 2, figs. 1, 2, 4, 5.—Mont., 1888a, 7, 8, 17; 1891, 497, 500, 502.—Olss., 1868, 49; 1876, 20.—Pag., 1862, 305, pl. 29, figs. 9–10.—Sons., 1891, 259, 261 (in *Rhombus lævis*, *Trigla cuculus*).—Stoss., 1883, 115 (in *Anguilla vulg.*); 1885, 159; 1886, 13 (= *D. caudiporum* Duj.); 1890, 40, 50; 1891, 112; 1902, 582.—Wagener, 1860, 166, 178–181, 183, pl. 9, figs. 6–10.—Also reported for *Acipenser sturio*, *Centronotus glaucus*, *Cepola rubescens*, *Conger conger*, *Dactylopterus volitans*, *Roccus lineatus*, *Saurus lacerta*.

DISTOMA—Continued.

- saginaturn* Ratz, 1898, Oct. 15, 73-75, fig. 5 (in *Ardea alba*); 1900, 437-439.
- salamandræ* (Frölich, 1789) Zed., 1803a, 215 (in *Salamandra nigra*).—Dies., 1850a, 356 (syn. of *D. crassicolle*).—Rud., 1809a, 379 (syn. of *D. crassicolle*).
- salamandrina perspicillata* Sons., 1896, 1; 1896, 116 (in *Salamandrina perspicillata* Say).
- sanguineum* Sons., 1894, 111; 1894, 1-4 (n. sp. in *Chamaeleo vulgaris*; Gabes, Tunis); 1895, 124.—Braun, 1899b, 718; 1900, 225.—Jacoby, 1900, 11.—Looss, 1896b, 106-114, pl. 7, figs. 69-74, pl. 8, figs. 75-78 (in *Taphosus nudiventris* at Cairo; caméléon in Egypt); 1899b, 556, 636, 637 (type of *Anchitrema*).—Ofenheim, 1900, 183.—Stoss., 1895, 217 (in *Chamaeleo vulg.*; Tunisia).
- sauromates* Poir., 1886, 24-26, pl. 2, figs. 4-6 (in lungs of *Elaphis sauromates*).—Braun, 1892a, 699, 736, 737; 1893a, 876 (*sauromatis*).—Looss, 1894a, 204.—Luehe, 1899, 532, 533; 1900, 561.—Mont., 1888a, 57; 1893, 83, 86, 95, 102, 107.—Sons., 1893, 185; 1893, 216.—Stoss., 1895, 220-221 (in *Elaphis sauromates*); 1904, 2.—Volz, 1899, 232, 234, 237.
- sauromatis* Braun, 1893, 876, for *sauromates*.
- scaber* Rud., 1819 of Odhn., 1905, 353, perhaps a *Stephanochasmus*.
- scabrum* (Mueller, 1788) Zed., 1803a, 215-216 (in *Gadus barbatus*).—Bellingham, 1844a, 427.—Ben., 1870, 61 to (*Echinost.*).—Carus, 1884, 126.—Cobbold, 1858b, 158; 1860a, 37.—Crep., 1837, 311.—Dies., 1850a, 393, 398 (in *Morrhua barbata*, *Lota molva*; Naples); 1858e, 351 (in *Merlangus pollachius*).—Duj., 1845a, 432-433.—Kroyer, 1838-40a, 605; 1843-45a, 41, 166 (in *Gadus morrhua*, *Lota molva*).—Looss, 1899b, 581, 582 (of Mueller, generically *Hemiurus*, specifically problematic) (of Rud., probably a *Stephanost.*).—Mont., 1891, 507, to (*Fasc.*).—Nicoll, 1907, 78.—Olfers, 1816, 46.—Rud., 1809a, 387, 406-408, 428, 435; 1810a, 376; 1819a, 118, to (*Echinost.*), 122, 124 (see also *scaber*).—Stoss., 1886, 34.—Also reported for *Gadus pollachius*. *Molva vulgaris*.
- scimna* Risso, 1826, 262 (also spelled *scymna* and *scymni* by various authors) (in *Echinorhinus spinosus*; Europe).—Ariola, 1899, 7 (*scymni*).—Dies., 1850a, 347 (syn. of *D. insigne*).—Mont., 1893, 52 (*scymni*).—Villot, 1876, 1344-1346; 1878, 3 (*scymna*).
- scombrinum* Linst., 1889a, 80, for *sobrinum*.
- scorpææ* Rud., 1819a, 122 (in *Scorpæna serofa*; C. E. V.).—Barbagallo & Drago, 1903, 410 (in *Scorpæna lutea*; Catania) to (*Dicrocœlium*).—Braun, 1892a, 569, 642, 728.—Dies., 1850a, 398.—Looss, 1899b, 571 (this form as described by Stoss., 1885, 3, 5, belongs to the *Creadiinae*, possibly to *Creadium*).—Mont., 1893, 83, 84, 95.—Stoss., 1885, 158 (in *Scorpæna serofa*; Triest); 1886, 33; 1898, 49.
- scorpii* (Mueller, 1776) Zed., 1803a, 216.—Dies., 1850a, 366 (syn. of *D. granulum*) (in *Cottus scorpio*).—Rud., 1809a, 395.
- scymna* Villot, 1878, 3, for *scimna*.
- scymni* Mont., 1893, 52, for *scimna*.—Ariola, 1899, 7 (syn. of *D. veliporum*).
- scyphocephalum* Braun, 1899e, 630 (in *Testudo matemata*; Brazil); 1901b, 34-36, fig. 14.
- segmentatum* Mueller, 1894, 125-127, pl. 7, fig. 10, to (*Echinost.*).
- semiarmatum* Mol., 1858, 131 (in *Acipenser naccari*; Patavii); 1861, 223.—Braun, 1892a, 584.—Carus, 1884, 127.—Dies., 1858e, 352.—Odhn., 1902, 159.—Stoss., 1886, 42.
- semiflavum* Linst., 1880, 50-51 (in *Petromyzon fluviatilis*).—Stoss., 1886, 54.
- semisquamosum* Braun, 1900b, 228-229, pl. 10, figs. 6, 7 (in *Vesperugo noctula*).—Looss, 1907, Mar. 7, 483 (belongs in *Parabascus*).
- seriale* Rud., 1808a, 351 (in *Salmo alpinus*; Greenland); 1809a, 368-370 (in *Salmo alpinus*), includes *Fasc. umblæ*, 1780; 1819a, 97.—Braun, 1893a, 876; 1893d, 467.—Cobbold, 1860a, 23; 1879b, 457 (in *Salmo umbla*).—Dies., 1850a, 343 (includes *D. umblæ*; *Fasc. umblæ*).—Duj., 145a, 464.—Olfers, 1816, 45.—Stoss., 1886, 54.
- serpentatum* Mol., 1859, 830-831 (in *Sayris camperi*; Padua).—Par., 1896, 18-19, fig. 7 (to *Brachylaimus*).—Also reported for *Scomberesox rondeletti*.
- serpentulum* Carus, 1884, 131 (for *serpentatum*).—Stoss., 1886, 54.
- serratum* Dies., 1850a, 385 (in *Aranus scolopaceus*; Brazil); 1855a, 67, pl. 3, figs. 14-17; 1858e, 347.—Braun, 1892a, 571.—Stoss., 1892, 171.

DISTOMA—Continued.

- sialidis* Linst., 1892, 334, pl. 15, fig. 20 (in *Sialis lutaria*).—Braun, 1893b, 183.
- sibiricum* Winogradow, 1892, 116–130 (in *Homo*); 1892, Nov. 30, 910–911; 1900, 617–618 (in *Man*).—Anders, 1903, 6 ed., 1245 (in *man*).—Askanazy, 1900, 491, 492, 494; 1901, 73, 77 (in *Tomsk*, in *Homo*, *dog*, *cat*).—Bossuat, 1902, v. 6 (2), 188 (syn. of *Opisthorchis felineus*).—Braun, 1894g, 128–129; 1894h, 755; 1894i, 602–606; 1903, 3 ed., 157 (syn. of *Op. fel.*), 159, fig. 106.—Huber, 1896a, 576.—Kamensky, 1900a, 5, 19.—Katsurada, 1900, 500.—Kholodk., 1899a, 152.—Looss, 1899b, 674; 1905, 89 (syn. of *Op. fel.*).—Moniez, 1896, 137, fig. 27.—Simon, 1897, 209, 223.—Ward, 1895, 328 (in *Homo*); 1903, 869 (syn. of *Op. fel.*).—Weichselbaum, 1898, 315.
- siemersi* Buttel-Reepen, 1900a, 586, 589, 596–598, figs. 8–9 (in *Sphyræna barracuda*; Atlantic Ocean); 1902, Dec. 8, 165–236, pl. 6, fig. 26, pl. 10, fig. 54, text fig. h; 1904, Jan. 26, 24–25; 1905, July, 52–53.—Darr, 1902, 668, 671.
- signatum* Duj., 1845a, 415–416 (in *Coluber natrix*; Rennes) to (*Brachylaimus*.—Braun, 1891, 100; 1892a, 780, 784, 785; 1893a, 864, 866, 873; 1901b, 13, 16 (of *Erc.*, syn. of *D. ercolanii* Mont.).—Cobbold, 1860a, 20.—Dies., 1850a, 390 (in *Tropidonotus natrix*); 1858e, 350 (in *Tropidonotus*).—Gamb., 1896a, 72.—Hoyle, 1890, 538.—Kampmann, 1894b, 454, 456, 457, pl. 20, fig. 10.—Linst., 1879, 185.—Looss, 1899b, 706.—Luehe, 1899, 528 (of *Erc.*, not *Duj.*).—Mont., 1893, 187, 188.—Mueh., 1898, 30.—Schauinsland, 1882, 496.—Sons., 1893, 186.—Stoss., 1895, 216–217; 1898, 34.—Volz, 1899, 235, 237.—Wedl, 1855, 400–401, pl. 2b, fig. 8.—West, 1896, 323.—Also reported for *Natrix torquata*.
- signatum* of *Erc.*, 1881c, 73, 74, 75, 76, 78, 79, 81, 82; 1882a, 309, 310, 311, 312, 314, 315, 317, 318, pl. 2, figs. 2–5 (in *Tropidonotus natrix*), renamed *D. ercolanii* by Mont., 1893, 187, 188, pl. 6, fig. 67.—Braun, 1901b, 13, 16.—Luehe, 1899, 528.—Par., 1904, 1.—Stoss., 1904, 1.
- simile* Sons., 1890, 105 (in *Python molurus*); 1893, 215, 216; 1893, 185 (in *Py. mol.*); 1893, 499.—Looss, 1899b, 602.—Luehe, 1899, 532.
- simile* Looss, 1899b, 602 (see *Hæmatolœchus similis*).—Stiles, 1901, 178.—Stiles & Hass., 1902d, 20 (renamed *Hæmatolœchus similigenus*).
- simillimum* Mueh., 1898, 18 (in *Fuligula nyroca*); 1898, 26, 96–97, 98, figs. 4, 19.—Braun, 1902b, 11, 18.—Looss, 1899b, 574 (to *Psilost.*).
- simplex* Rud., 1809a, 370–371 (in *Gadus æglefinus*), Fasc. æglefini Mueller, 1776, renamed; 1819a, 97.—Braun, 1892a, 642, 699, 711, 728, 736; 1893a, 866, 879.—Cobbold, 1858b, 157.—Dies., 1850a, 343–344.—Duj., 1845a, 466.—Kroyer, 1838–40a, 606 (in *Gadus æglefinus*).—Lamoureux, 1824a, 563 (distome simple).—Levin., 1881a, 18, 67–69, pl. 3, fig. 1 (of Olss., syn. Fasc. æglefini) (larva in *Themisto libellula*; adult in *Cottus scorpius*; *Phobeter ventralis*; *Egedesminde*); 1876, 15.—Lint., 1898, 525–526, pl. 47, figs. 3–7; 1900, 295; 1901, 415 (*Hemitripterus americanus*, *Leptocephalus conger*, *Limanda ferruginea*, *Microgadus tomcod*), 420, 436, 451, 468, 475, 482, 483, 485, 486, figs. 331, 332; 1905, 328, 334, 397 (in *Micropogon undulatus*).—Linst., 1889a, 97 (in *Conger vulgaris*).—Mont., 1893, 61, 83, 86, 94, 102, 105, 106, 107.—Nicoll, 1907, 70, 73 (of Olss., syn. of *Podocotyle atomon*).—Nord., 1840, 619 (syn. of Fasc. æglefini).—Odhn., 1901, 484, 485, 506, 508, 509, 510, 511, 512, 513; 1905, 320–321 (of Olss., syn. of *Podocotyle atomon*) (to *Sinistroporus*, designated type in letter to Stiles, May 15, 1905).—Olfers, 1816, 45.—Olss., 1868, 34; 1876, 15.—Staff., 1904, 484.—Stoss., 1886, 30–31 (in *Anguilla vulgaris*, *Cottus scorpius*, *Gadus æglefinus*, *G. melanostomus*, *Lota vulgaris*, *Phobeter ventralis*, *Raniceps niger*, *Sebastes norvegicus*); 1902, 582.—Also reported for *Conger vulgaris*.
- simplex* Rud. of Olss., 1868, 34; 1876, 15.—Levin., 1881, 67–69 (syn. Fasc. æglefini) (larva in *Themistone libellula*; adult in *Cottus scorpius*, *Phobeter ventralis*; *Egedesminde*).—Odhn., 1905, 320–321 (syn. of *Podocotyle atomon*).
- simplex* Polonio, 1859, teste Par., 1894, 147 (in *Lacerta muralis*; Padua).
- simulus* Looss, 1896b, 52–54, pl. 4, figs. 28–30 (in *Pernis apivorus*; Alexandria); 1899b, 673 (to *Opisthorchis*).—Jacoby, 1900, 7.
- sinense* Cobbold, 1875i, Sept. 18, 423 (in *Homo*); 1875, Oct., 780–781; 1876, 97 (same as *chinense* and *macconnelli*); 1877, Jan., 15–16; 1883, 401; 1884g, 976.—Bætz, 1883, 234.—Biggs., 1890a, 30–37, 1 fig. (in *U. S. A.*).—Billet, 1893a, 506–510, figs. 1–2 (syns.: *D. hepatis perniciosum*, *D. hepatis innocuum*, *D. japonicum*).—R. Bl., 1888a, 585, 596, 615–618 (syn. *D. spathulatum* Leuck.), 622 (similar to *D. japonicum*), 631; 1891, 605, 607–609, 610 (syns.:

DISTOMA—Continued.

- D. japonicum* Bl., *D. hepatis endemicum sive perniciosum*, *D. hepatis innocuum*; 1901b, 209; 1901c, 586 (to *Opisthorchis*).—Braun, 1891d, 426; 1893, 349, 352, 353; 1893a, 875; 1893f, 386, 425, 427, 428; 1894i, 605; 1895b, 146–147, figs. 63–64; 1903, 3 ed., 161 (to *Opisth.*).—Bruce, 1897a, 211–212.—Brunet, 1902a, 125.—Caræs, 1888a, —, pl. 2 (liver flukes of man in Orient); 1888, 44 pp., 4 figs.—Chester, 1887a, 360.—Corlette, 1897a, 146–147 (Australia).—Delafeld & Prudden, 1897, 130.—Gamb., 1896a, 63, 70.—Giard, 1904, 8.—Grall, 1887a, 468, 1 fig; 1887, xlviii.—Hackley, 1886, 518–519, fig. 883.—Hahn & Lefèvre, 1884a, 544–545 (syns. *D. spathulatum* Leuck., *D. hepatis innocuum* Bälz).—Hori, 1890.—Huber, 1896a, 577 (syn. of *D. spatulatum* Leuck.).—Ijima, 1889b, 145.—Jamieson, 1897a, 71–74, 1 fig. (jaundice); 1897b, 147–148.—Janson, 1893c, 265–266.—Katsurada, 1891; 1900, 479.—Kholodk., 1898, 26, 28, pl. 11, figs. 6–9; 1899a, 152.—Kuech., 1881, 333–335, pl. 8, fig. 10A.—Kurimoto, 1893a, 1–7, 21–24, 35–39, 1 pl. (in Saga, Japan); 1893b, 67–69, 85–87, 109–111.—Linst., 1903, 279.—Looss, 1905, 90 (to *Opisth.*); 1907, Feb. 1, 136, 137, 141, 142, 143, 144, 147.—MacGregor, 1877, 3–16, 1 pl.—McConnell, [1875, 271–274; 1876, 343 (sinense); 1878, March 16, 406 (m'connelli)].—Manson, 1901 (Gibson), 540; 1903, 3 ed., 631, 635–637, 639.—Moniez, 1896, 86, 123, 125–136, 137, fig. 25 (excellent discussion).—Mosler & Peiper, 1894, 177–178, fig. 70 (sinense).—Moty, 1893, March 3, 224–230 (pathology).—Nakahama, 1883, —.—Pfihl, 1884, 156.—Rail., 1890, 142, 143.—Remy, 1883, 513.—Schneidemuehl, 1896, 302.—Simon, 1897, 223.—Sons., 1889, 278, 279, 280; 1889, 7 July, —; 1896, 297, 302.—Staff., 1902, 483 to (*Opisth.*).—Stoss., 1892, 23 (syn. of *D. endemicum*).—Taylor, 1875, 772–780, figs. 1–3; 1884, 48–51, 52–53; 1885, 58–60.—Tyson, 1903, 3 ed., 1180.—Vallot, 1889, 382.—Ward, 1895, 238 (man, cat), 328 (in *Homo*); 1903, 869 (to *Opisth.*).—Weichselbaum, 1898, 315.—White, 1902, Dec., 523 (cases in U. S. A.).—Wood & Fitz, 1897, 335.
- sinense* Mosler & Peiper, 1894, 177–178, fig. 70 (for *sinense*).
- sinense* of McConnell, 1876, 343 (misprint for *sinense*).
- singulare* Mol., 1859, 288 (in *Ibis falcinellus*); 1861, 200–201, pl. 2, fig. 6, pl. 3, fig. 3.—Braun, 1891d, 421; 1892a, 578, 700, 736, 737; 1901, 260; 1901, 896; 1902b, 86 (syn. of *Stomylotrema pictum* Crep.).—Dies., 1859c, 428 (in *Ibis falcinellus*; Patavii).—Looss, 1899b, 723 (type of *Stomylus*).—Stoss., 1892, 162.
- singulare* Mol. of Looss, 1899b, 723.—Braun, 1902b, 86 (renamed *Stomylotrema perpastum*).
- sinuatum* Rud., 1819a, 97–98, 374 (in *Ophidium imberbe*; Naples).—Braun, 1883a, 41; 1891d, 421; 1892a, 672, 763, 765.—Carus, 1884, 131.—Cobbold, 1860a, 25.—Dies., 1850a, 344 (in *Fierasfer imberbe*).—Duj., 1845a, 468.—Odh., 1901, 484, 490, 491; 1902, 160.—Par., 1902, 6 (in *Ophidium barbatum*; Portoferraio).—Stoss., 1886, 55.—Will.-Suhm, 1870, 7–8; 1871, 181–182, pl. 11, fig. 6.—Also reported for *Fierasfer acus*.
- siredonis* Poir., 1886, 32–33, pl. 3, figs. 4–5 (in *Siredon mexicanus*, int.).—Looss, 1894a, 204, to *Opisthioglyphe*.—Mont., 1893, 83, 86, 102, 107.
- sirenis* Braun, 1893a, 870 for *sirenis lacertinae* Vaillant.
- sirenis lacertinae* Vaillant, 1863, 348–350, pl. 9, fig. 9 (in *Siren lacertina*).—Stoss., 1889, 69.
- sluiteri* (Brock, 1886) Braun, 1892a, 651.
- sobrinum* Levin., 1881a, 70–71 (in *Cottus scorpius*; Egedesminde).—Looss, 1899b, 581 (to *Stephanost.*).—Odh., 1905, 331 (to *Stephanochasmus*).—Also reported for *Aspidophorus decagonus*.
- soccus* Mol., 1858, 129 (in *Mustelus plebejus*; Patavii); 1861, 203.—Ariola, 1899, 7 (syn. of *D. megastomum*).—Braun, 1893a, 873.—Dies., 1858e, 351 (in *Mustelus plebejus*).—Jacoby, 1900, 17.—Linst., 1903, 354.—Mont., 1893, 53, 192, 193.—Stoss., 1883, 118; 1890, 131; 1898, 38.
- sociale* Luehe, 1901p, 171–173 (in *Bufo melanostictus* Schneider).—Braun, 1901h, 700.—Klein, 1905, 20, 78.—Odh., 1902, 42.
- solex* Duj., 1845a, 417–418 (in *Pleuronectes solea*; Rennes) to (*Brachylaimus*).—Dies., 1850a, 399.—Kroyer, 1838–40a, 612 (in *Solea vulgaris*).—Mont., 1893, 193.—Stoss., 1886, 55.—Wagener, 1860, 184.
- solexforme* Rud., 1809a, 384 (in *Trigla gurnardus*) (*D. triglae gurnardi* renamed); 1819a, 104.—Braun, 1893a, 873.—Cobbold, 1860a, 26.—Dies., 1850a, 362.—Duj., 1845a, 457.—Fraip., 1881b, 4 (in *Tr. gur.*).—Kroyer, 1838–40a, 100 (in *Tr. gur.*).—Olfers, 1816, 45.—Stoss., 1886, 55.

DISTOMA—Continued.

- soleare* Braun, 1899e, 629–630 (in *Testudo midas*); 1901b, 22–23, fig. 8.
- somateriæ* Levin., 1881a, 71–73, pl. 3, fig. 2 (in *Somateria mollissima*; Egedesminde).—Braun, 1892a, 578, 579, 586, 642, 735; 1893a, 893, 910.—Giard, 1903g, 1225.—Jägers., 1898, 15, 16; 1900, 738.—Jameson, 1902a, 140–166, 4 pls., 3 figs.—Linst., 1890, 179.—Looss, 1894a, 173; 1899b, 618, 619; 1901, 207.—Luehe, 1898, 624, 625; 1899, 537.—Mont., 1888a, 12, 38; 1893, 43, 61, 83.—Odh., 1900, 12, 13; 1905, 311 (to *Gymnophallus*), 313.—Staff., 1905, Apr. 11, 692.—Stoss., 1892, 146.
- sophiæ* Stoss., 1886, 44–45, pl. 8, figs. 34–35 (in *Pagellus mormyrus*; Trieste); 1898, 49–50.—Braun, 1892a, 644, 720, 728.—Looss, 1899b, 571 (thinks this belongs to *Creadiinae*, possibly to *Creadium*): 1902m, 785 (cf. *D. isoporum armatum*).—Mont., 1893, 85, 94, 102.—Odh., 1905, 328, 338.
- soricis* Dies., 1858e, 354 (in *Sorex araneus*) (based on *Distome* (*Dicrocoelium*) de la Musraigne-Musette Pontaillié, 1853, 103).—Braun, 1893a, 875.—Cobbold, 1860a, 9.—Stoss., 1892, 36 (in *Crociodura aranea*).
- soricis aranei* Dies., 1855, 64, footnote 3, to (*Dicrocoelium*).
- spari* Rud., 1819a, 122 (in *Sparus erythrinus*, *S. smar*; C. E. V.).—Dies., 1850a, 399.—Stoss., 1886, 55 (in *Pagellus erythrinus*, *Smaris vulgaris*).
- spathaceum* Rud., 1819a, 109, 403 (in *Larus glaucus*; Mus. Vien.).—Baird, 1853a, 48.—Crep., 1837, 310; 1839, 287.—Dies., 1850a, 310 (to *Hemist.*).—Nitzsch, 1819, 400.—Nord., 1840, 628 (to *Holost.*).
- spatulatum* Leuck., 1876, 871–872 (nec Crep., 1849) see *Opisthorchis sinensis* (see also *D. spatulatum*) (in *Homo*); 1889, 336–355, figs. 154–161.—R. Bl., 1888a, 615 (syn. of *D. sinense*); 1901b, 209; 1901c, 586 (syn. of *Op. sin.*).—Brand., 1891b, 265; 1891c, 731; 1891d, 11.—Braun, 1883a, 65; 1892a, 598, 602, 641, 661, 669, 671, 682, 699, 700, 704, 707, 712, 714, 717, 719, 724, 725, 732, 733, 784, 785; 1893, 349; 1903, 3 ed., 161 (syn. of *Op. sin.*).—Cobbold, 1876, 97; 1883, 401.—Duffek, 1902a, 774.—Gamb., 1896, 63.—Hahn & Lefèvre, 1884a, 544 (syn. of *D. sinense* Cobb.).—Harz, 1881c, 5.—Huber, 1896a, 577–578.—Ijima, 1889b, 145.—Inoue, 1900a, 1–60, 18 charts; 1903, 107–146.—Jamieson, 1897b, 147 (*spatulatum*) (syn. of *D. sinense*).—Katsurada, 1891b, 1–12, 1 pl. (case of *cystoma hepatis*); 1898a, 165–167 (relation to gallstones); 1900b, 479–505, pl. 13, figs. 1–13; 1900c, 1901a, 169–174; 1902a, 50–52; 1904, v. 2 (3), 22; 1904, Dec., 148 (in cats and dogs).—Laspeyres, 1904a, 16 pp. (case).—Looss, 1894a, 180, 186, 206, 212, 214; 1899b, 564; 1905m, 280 (syn. of *Op. sin.*); 1905, 90 (syn. of *Op. sin.*); 1907, Feb. 1, 141 (syn. of *D. sinense*).—MacGregor, 1877, May 26, 775–776 (in *Homo*).—Mont., 1888a, 39, 52 (*spatulatum*), 57; 1891, 110; 1893, 83, 84, 86, 95, 102, 105, 106, 107.—Mosler & Peiper, 1894, 177.—Rail., 1890, 143.—Saito, 1898, June 5, —; 1906, Sept. 10, 133–138, figs. 1–10; 1906, Sept. 20, 1555.—Sons., 1889, 278 (*spatulatum*).—Vogt, 1878, 10, 14.—Ward, 1903, 870 (syn. of *Op. sin.*).—Yamagiwa, 1891, 5 March; 1901, xxx, 155–168, fig. 1.
- spatulatum* Rud. (nec Leuck.) of Crep., 1837, 310; 1839, 287; 1849, 66–67.—Braun, 1901b, 29.—Kowal., 1896d, (3), 253 (in *Botaurus minutus*; Dublany), to (*Echinost.*) for *spatulatum*; 1902d (9), 27 (to *Sodalis*).—Looss, 1902m, 462.
- spatulatum hepatis* Simmonds, 1901, 110–111.
- spatula* Duj., 1845a, 394 (in *Accentor modularis*; Rennes) to (*Dicrocoelium*).—Dies., 1850a, 336.—Stoss., 1892, 156.
- spatulatum* Rud., 1819a, 109, 403–404, 600 (in *Ardea minuta*; Vienn. Mus.).—Bremser, 1824c, pl. 9, figs. 15–16.—Crep., 1829b, 4.—Dies., 1850a, 367 (to *Holost.*).—Duj., 1845a, 376.—Harz, 1881c, 5.—Nitzsch, 1819, 400.—Nord., 1840, 628 (to *Holost.*).—Stoss., 1892, 186 (in *Ardetta minuta*; Vienna).—Also reported for *Botaurus minutus*.
- spatulatum* Cobbold, 1879b, 28 (for *spatulatum* Leuck.).—Aschoff, 1892, 495.—Askanazy, 1900c, 712.—Hoyle, 1890, 538.—Huber, 1896a, 277–278.—Jamieson, 1897b, 147.—Mont., 1888, 52.—Simon, 1897, 209, 223.—Stoss., 1892, 23 syn. of *D. endemicum* Bætz).—Ward, 1895, 328 (in *Homo*).
- spatulatum* (*endemicum*) Anders, 1903, 6 ed., 1245 (in man).
- species Barbagallo & Drago, 1903, 410 (in *Mugil cephalus*; Catania).
- species Barbagallo & Drago, 1903, 410 (in *Julis pavo*; Catania).
- species Barbagallo & Drago, 1903, 410 (in *Trachurus trachurus*; Catania).
- species Duncker, 1881d, 141; 1884a, 39–42, figs. 1–6.

DISTOMA—Continued.

- species Heymann, 1905, 96–98, figs. A. B.
 species Johnstone, 1907, 186–188, fig. 17 (in *Labrus mixtus*; Morecambe Bay).
 species Kellicott, 1894, 123–126.
 species Nicoll, 1907, 70, 92 (in *Cottus scorpius* Bloch).
 species Nicoll, 1907, 71, 91–92, pl. 3, fig. 12, pl. 4, fig. 13 (in *Cottus bubalis*)
 species Nicoll, 1907, 71, 92 (in *Gobius ruthensparri*).
 species Nicoll, 1907, 72 (in *Pleuronectes microcephalus*).
 species Sons., 1890, 105, t. h. *Python molurus*.
sphærostomum Schlotthauber, 1860, 130 (in *Corvus caryocatactes*).
sphærule Looss, 1896b, 81–86, pl. 6, figs. 59–60 (in *Rhinolophus hippocrepis* Bonap.; Ghizeh); 1898, 454, 456, 457, figs. I, VI; 1899b, 547.—Stiles, 1901, 200.
spiculator Duj., 1845a, 424–425 (in *Mus decumanus*; Rennes) to (Echinost.).—Braun, 1901e, 340.—Cobbold, 1879b, 316.—Dies., 1850a, 382.—Erc., 1881e, 15; 1882a, 251.—Linst., 1886, 128–131, pl. 9, figs. 28–29; 1890, 184.—Stoss., 1892, 28 (to Echinost.).
spiculigerum Mueh., 1898, 18–19 (in *Fuligula nyroca*); 1898, 4, 26, 97–100, fig. 18.—Braun, 1902b, 11, 15 (to *Psilost.*), 16 (syn. of *D. oligoon*), 18, 155.—Looss, 1899b, to *Psilost.*
spiniceps Looss, 1896b, 114–118, pl. 8, figs. 79–80 (in *Bagrus bayad*; Cairo); 1899b, 578, 581 (type of *Acanthost.*).—Braun, 1899, 630; 1901b, 34.
spinosum Linst., 1880, 51 (in *Sylvia rufa*).—Braun, 1892a, 696, 733.—Looss, 1894a, 175.—Luehe, 1899, 531 (thinks this is perhaps *D. cirratum*).—Stoss., 1892, 162.
spinulosum Rud., 1808a, 458; 1809a, 425 (in *Larus cinerarius*, *L. nævius*, *Colymbus septentrionalis*; Greifswald, July, August) to (Echinost.); 1819a, 116 (in *Colymbus cristatus*; Mus. Vien.), 419.—Baird, 1853a, 56.—Bellingham, 1844a, 426.—Braun, 1892a, 575; 1893a, 879.—Crep., 1837, 316; 1846, 141, 144, 146.—Dies., 1850a, 392; 1858e, 350, 351 (in *Numenius arquatus*; *Anas clangula*; *Larus capistranus*; *L. ridibundus*; *Podiceps cristatus*).—Duj., 1845a, 430.—Linst., 1877, 183, pl. 13, fig. 14.—Mol., 1858, 130–131; 1861, 220–221, pl. 3, fig. 6, pl. 4, fig. 2.—Mueller, 1897, 20–21, pl. 3, fig. 4.—Nord., 1832a, 90, 102.—Olfers, 1816, 47.—Stoss., 1892, 64 (in *Larus ridibundus*; Trieste); 1892, 169 (to Echinost.).—Reported for *Anas boschas fera*, *A. marila*, *A. querquedula*, *Carbo graculus*, *Ceryle rudis*, *Colymbus cristatus*, *C. septentrionalis*, *Haliæus graculus*, *Uria grylle*).
spinulosum Hofmann, 1899a, 184, 193, 201.—Braun, 1899, 492 (in *Erinaceus europæus*) to Harmost.; 1900, 12; 1901e, 338 to Harmost., 341.—Looss, 1899b, 689.
“*spinulosum*” of Mol., 1861, pl. 4, fig. 2 (is not *E. spinulosum*, see Looss 1899b, 689, but perhaps a *Stephanost.*).
spirale (Dies., 1850) Brand., 1892, 507.—Braun, 1899, 631–632; 1901b, 54.—Stoss., 1895, 232 (in *Peltecephalus tracaxa*, *Testudo tabulata*, *Hypsilopus tuberculatus*).
spirale Fil., see Par., 1896, 2 (in *Dentex vulgaris*).
squamata Kerbert, 1881a, 556 (in *Rana temporaria*) for *squamula*.
squamosum (Villot, 1878) Brand., 1890a, 577.—Braun, 1892a, 569, 735.
squamula Rud., 1819a, 103, 391 (in *Mustela putorius*; Mus. Vien.).—Baird, 1853a, 52.—Brand., 1892, 506.—Braun, 1890a, 439; 1892a, 567, 568, 571, 628, 636, 637, 638, 640, 641, 642, 647, 648, 655, 678; 1893a, 866, 871, 880.—Bremser, 1824, pl. 9, figs. 9–10.—Crep., 1837, 326; 1839, 288.—Dies., 1850a, 321 (to Monost.) (in *Mustela putorius*; Toulouse).—Duj., 1845a, 406, type of *Eury-soma*.—Fraip., 1880a, 398; 1880b, 106; 1880c, 419, 420–429, 430, 432, 433, 441, 442, 443, pl. 18, figs. 1–17 (in *Rana temporaria*, larva; *Mustela putorius*, adult); 1881b, 1, 3, 4, 14; 1883a, xxxvii.—Gamb., 1896, 72.—Jackson, 1888, 645.—Kampmann, 1894b, 446, 448.—Levin., 1881a, 75.—Linst., 1873, 99.—Looss, 1885b, 20.—Maddox, (1867a), 87–99 (in *Morrhua æglefinus*).—Mont., 1888a, 7, 41, 43, 45; 1893, 62.—Poir., 1885, 102.—Stiles & Hass., 1898a, 88, 98 (type of *Eury-soma*).—Stoss., 1892, 20 (in *Putorius putorius*; *Putorius vulgaris*; Vienna, Tolosa).—Zeller, 1867, 21 Mar., 213–220, pl. 13, figs. 1–4 (in grass frog).—Also reported for *Pætorius putorius*.

DISTOMA—Continued.

- sternæ cantiacæ* Dies., 1858e, 355 (in *Sterna cantiaca*), based on LaValette, 9, 37, pl. 1, figs. 15, 1. 2., and Moul., 1856, 102.—Stoss., 1892, 186.
- stossichii* (Mont., 1891) Braun, 1891d, 423 (=D. ocreatum Mont.) (in *Clupea pilchardus*); 1893a, 911.
- stridulæ* Reich, 1801, 371–386 (in *Strix stridula*).—Brand., 1888a, 9.—Dies., 1850a, 386.—Pulteney, —, 371.—Rud., 1809a, 423 (renamed D. apiculatum).
- sturionis* Rud., 1809a, 435 (in *Acipenser sturio*; Arimini); 1819a, 118 (syn. of D. hispidum).—Baird, 1853a, 57.—Dies., 1850a, 392 (syn. of D. hispidum).
- subclavatum* (Gœze, 1782) Zed., 1800a, 164 (in *Rana*), 185–188.—Ben., 1858a, 1861a, 81, 82 (to *Amphist.*).—Brand., 1888a, 9.—Dies., 1850a, 318 (to *Diplo-discus*).—Rud., 1809a, 348.
- subflavum* Sons., 1892, 91–92 (in *Zamenis viridiflavus* Lacep.); 1893, 184.—Braun., 1893b, 185 (in *Z. virid.*).—Stoss., 1895, 216 (in *Z. virid.*; Pisa).—Volz, 1899, 235, 237.
- subtriquetrum* Nord., 1840, 616 [the sequence of names is D. amphist., D. subtriquetrum, apparently a lapsus for *Amphist. subtriquetrum*].
- sulcatum* Linst., 1883, 309, pl. 9, fig. 51 (in *Perdix græca*; Turkestan); 1886, 33.—Braun, 1901, 941; 1902b, 119.—Stoss., 1892, 145 (to *Cladocœlium*).
- suspensum* Braun, 1901g, 948 (in *Corvus* sp.); 1902b, 11, 147.
- sygnoides* Nord., 1840, 617 for D. cygnoides.
- tacapense* Sons., 1894, 111–112; 1894, 2–6, 7 (in Ch. vulg., *Rana esculenta*, *Bufo* sp.; Gabes in Tunis) to (*Brachycœlium*); 1895, 124 (in *Chamæleo vulgaris*).—Looss, 1896b, 86–97, pl. 6, figs. 61–62, pl. 7, fig. 63 (in *caméléon*; Alexandria); 1898a, 460, 461, fig. 2; 1899b, 616, 617, 622 (syn. of D. medians Olss., based on reexamination of original slides).—Stoss., 1895, 215 (in Ch. vulg.; Tunisia).
- talpæ* Viborg, 1795, 242.—Rud., 1809a, 331, 390.
- tarda* Steenstrup, 1842, 75–76, pl. 3, figs. 1–6 (*Cerc. armata* Sieb., renamed) [name not mentioned in text].—Dies., 1850a, 298 (p. 138 of Steenstrup as syn. of *Cerc. armata*), 418 (p. 138, pl. 3, fig. 5e–g of Steenstrup as ? syn. of *Heptast. hirudinum*); 1855a, 381, 388 (syn. of *Cerc. (Xiphidioc.) armata*); 1858e, 366 (of 1850a, 418, syn. of *Tetracotyle typica*, new name).—Erc., 1881e, 21, 48, pl. 2, fig. 6; 1882a, 257, 284.—Fil., 1854a, 10, 15, 22.—Moul., 1856a, 150, 151, 201, 215, 226, 227, 230 (in *Lymnæus stagnalis*, *Planorbis corneus*).
- tartini* Stoss., 1899, 6, pl. 1, fig. 13 (in *Oblata melanura*; Triest).
- tectum* Linst., 1873, 104, pl. 5, fig. 4 (in *Osmerus eperlanus*).—Odhn., 1905, 352, 353 (= *crenata* 1802, type of *Brachyphallus*).—Stoss., 1886, 55.
- tenere* Looss, 1898, 461 (“D. tacapense Sons,” of Looss, 1896, 86, misdetermined) to *Pleurogenes*.
- tenerum* Looss, 1899b, 616 to (*Pleurogenes*), 622.
- tenuæ* Lint., 1898c, 535–536, pl. 52, figs. 2–8 (in *Roccus lineatus*); 1900, 294; 1901, 415, 455, 468, 469, 479; 1905, 328, 334, 365, 370, 373, 374, 376, 379, 386, 391, 396, 399 (in *Caranx hippos*, *Centropristes striatus*, *Coryphæna equisetis*, *C. hippurus*, *Cynoscion nebulosus*, *Menticirrhus americanus*, *Micropogon undulatus*, *Orthopristis chrysopterus*, *Pomatomus saltatrix*, *Sciænops ocellatus*).—Odhn., 1905, 331.
- tenuæ tenuissime* Lint., 1898c, 536–537, pl. 52, figs. 9–12 (in *Morone americana*); 1901, 415, 421, 456 (in *Roccus lineatus*, *Opsanus tau*).—Vaullegeard, 1901, 146.
- tenuicollæ* Rud., 1819a, 93, 365–366 (in *Phoca barbata*, liver).—Braun, 1893, 353; 1893a, 875; 1893f, 426, fig. 4; 1901e, 314–315, 338; 1903, 3. ed., 157 (of Mueh., 1896, p. p., syn. of *Opisthorchis felineus*).—Cobbold, 1860a, 6–7; 1879b, 313.—Dies., 1850a, 336–337.—Duj., 1845a, 440, 444.—Jægers., 1898, 6.—Looss, 1899b, 530, 674.—Mueh., 1896, 589 (*D. felineum* as syn.); 1896, 257–262, figs. 4, 11; 1898, 16, 24, 87, 88, 89, 90, 95.—Odhn., 1905, 347 (Rud. of Olss.).—Olss., 1893, 9.—Stiles & Hass., 1894e, 428.—Stoss., 1892, 18–19 (in *Phoca barbata*).—Ward, 1903, 869 (syn. *Op. fel.*).—Reported for *Erignathus barbatus*, *Delphinus phocæna*, *Felis domestica*, *Halichoerus grypus*, *Phocæna phocæna*.
- tenuissime* (Lint., 1898) Vaullegeard, 1901, 145 (=D. *tenuæ tenuissime*).
- tereticollæ* (Rud., 1802) Rud., 1809a, 379–381, 405 (in *Esox lucius*, *Perca lucioperca*, *Salmo trutta*); 1819a, 102, 122, 386, pl. 2, fig. 5, 600.—Ben., 1852, 24–29, 33, pl. 2, figs. 1–3; 1858a, 1861a, 98, 104, 174, 177, 178, 186, 189, 193, 206, pl. 8,

DISTOMA—Continued.

- figs. 1-17 (syns. *D. rosaceum*, *D. lucii*, *Fasc. longicollis*, *F. lucii*, *Plan. lucii*); 1870c, 140, 141, 142.—Bettend., 1897a, 31; 1897, 335.—R. Bl., 1888a, 544, 545, 547.—Brand., 1888a, 41; 1890a, 570.—Braun, 1883a, 70; 1892a, 568, 574, 575, 644, 653, 727, 745, 747, 757, 761, 763, 768, 778, 779, 780, 781, 782, 784, 786, 787, 788, 789; 1893a, 872, 873, 879, 883, 911; 1901b, 33; 1901e, 314, 315, 338.—Bremser, 1824c, pl. 9, figs. 5-6.—Cobbold, 1860a, 21.—Crep., 1837, 310, 311, 313, 314, 316, 317, 318, 321, 322, 323, 325.—Creutzberg, 1890a, 21.—Dies., 1850a, 358 (syns. *D. luzii*, *D. truncatum* Abildg., *F. longicollis*, *F. lucii*, *Plan. lucii*); 1858d, 272 (larva ? *Rhopalocerca tardigrada*); 1858e, 340 (in *Esox estor*); 1859c, 429.—Duj., 1845a, 419-420.—Fil., 1855b, 24, 25; 1857c, 29.—Fischer, 1840, 158.—Fraip., 1880c, 417, 443.—Harz, 1881c, 5 (syn. of *D. lucii* Zed.).—Hausmann, 1897b, 4, 6, 14, 15, 17, 20, 21, 22 (in *Esox lucius*, *Thymallus vulgaris*).—Jackson, 1888, 649.—Johnston, 1902, 329.—Jurine, —, 489.—Kowal., 1894, 2; 1894, 220; 1895, 372-390, pl. 8, fig. 10.—Koelliker, 1843, 99-101, 130, 135, 137.—Kroyer, 1838-40a, 41, 615; 1843-45a, 644; 1846-53a, 253 (in *Esox lucius*, *Lucioperca sandra*, *Salmo fario*, *S. trutta*).—Kuech., 1855, 187.—Lander, 1904a, 19.—Leidy, 1851b, 206; 1856b, 44; 1904a, 48, 87 (terreticolle).—Leuck., 1863a, 457, 459, 460, 485, 490, figs. 147, 148, 159.—Looss, 1893b, 813, 815; 1894a, 2, 5-18, 20, 22, 25, 28, 29, 31, 109, 113, 115, 116, 117, 118, 120, 124, 125, 136, 137, 142, 144, 147, 148, 149, 150, 151, 152, 153, 154, 159, 165, 166, 167, 176, 179, 181, 184, 185, 187, 188, 189, 197, 200, 202, 205, 206, 212, 215, 219, 241, 245, 270, 272, 275, 276, pl. 1, figs. 1-3, pl. 3, figs. 53-63, pl. 4, figs. 64-71, 74, pl. 6, fig. 121 (syns. *D. lucii*, *D. rosaceum*, *Fasc. lucii*, *Plan. lucii*) (in *Esox lucius*, *Lota vulgaris*, *Lucioperca sandra*, *Salmo fario*, *S. hucho*, *S. alpinus*, *S. trutta*, *S. umbla*, *Trutta variabilis*); 1894, 17; 1896b, 109; 1899b, 548, 549, 570; 1902m, 456, 457.—McIntosh, 1864, 150.—Mont., 1888a, 25, 27, 32, 43, 68, 69, 72; 1892, Oct. 7, 185, 187, 191; 1893, 16, 60, 115; 1896, 152, 153.—Moul., 1856a, 25, 31, 32, 49.—Mueh., 1898, 30.—Nord., 1840, 617, 619, (syn. of *Fasc. longicollis* Bloch).—Ofenheim, 1900, 152.—Olfers, 1816, 45.—Ols., 1876, 18; 1893, 11.—Poir., 1885, 102.—Schauinsland, 1882, 494, 496, 497.—Sieb., 1835, 59, 66, 82; 1836, 233, 237.—Sons., 1891, 264 (in *Esox lucius*).—Sramek, 1901, 96, 105, figs. 58-59 (syns. *Fasc. lucii* Mueller, *F. longicollis* Bloch, *F. teret.* Rud., *Plan. lucii* Gæze, *D. lucii* Zed.).—Stoss., 1886, 25; 1890, 50; 1891, 216; 1898, 38; 1904, 199.—Tennent, 1906, 670.—Wagner, 1857, 25, 28, 45, pl. 20, figs. 1-5 (in *Esox lucius*).—Wolf, 1903, 610.—Also reported for *Esox reticulatus*.
- tereticolle lucii* Mayer, 1841a, 18.
- tereticolle rosaceum* (Nord., 1832) Dies., 1850a, 364.
- tereticollis* Blainv., 1828a, 585 (for *Fasc. tereticollis* Rud.).
- teretiusculum* Mont., 1893, 40, 41, 42, 43, 82, 83, 94, 96, 98, 102, 118, 193, pl. 1, fig. 4; pl. 6, fig. 66 (in *Solea klenii*).—Jacoby, 1900, 4.
- tergestinum* Stoss., 1889, 28, pl. 13, fig. 57 (in *Oblata melanura*; Trieste); 1898, 44.—Braun, 1892a, 579.—Mont., 1893, 84, 86, 95.
- terreticolle* Leidy, 1904a, 48, 87, for *tereticolle*.
- testudinis* Rud., 1819a, 121 (in *Testudo orbicularis*; C. E. V.).—Braun, 1899, 630.—Dies., 1850a, 325 (syn. of *Monost. delicatulum*).—Duj., 1845a, 451.—Stoss., 1895, 232 (in *Emys orbicularis*; Vienna).
- testudinis midæ* Braun, 1899, 629 (for *mydæ*).
- testudinis mydæ* Rud., 1809a, 433, for *D. intestinalis testudinis mydæ*.—Braun, 1899, 629 (*midæ*).
- tetracystis* Gastaldi, 1854, 4-5, pl. 1, figs. 1-3 (in *Rana esculenta*).—Braun, 1893a, 871.—Cobbold, 1860a, 17.—Dies., 1855, 390; 1858d, 253 (larva=Cerc. (*Acanthocephala*) *microcotyla*); 1858e, 348 (stat. juven. in *Pelophylax esculentus*; larva in *Paludina achatina*; *P. vivipara*).—Fil., —, 30, pl. 1, fig. 9.—Linst., 1873, 1 (larva=Cerc. *microcotyla* Fil.).—Staff., 1900, 405, 410-412.—Stoss., 1889, 68 (in *Rana esculenta*; Torino).—Also reported for *Rana catesbiana*.
- tetracystis ranæ esculentæ* Dies., 1855, 64, footnote 9. See *tetracystis*.
- texanicum* Francis, 1891c, 135-136, pls. 3-8, 5 figs. (in *Bos taurus*; Texas); 1892, 426.—Huber, 1896a, 576 (syn. of *D. magnum*).—Leuck., 1892b, 797, 798 (*texicanum*).—Stiles, 1892e, 148; 1892g, 732-733; 1898a, 51.—Ward, 1895, 253 (syn. of *Fasc. magna*), 332 (in *Bos taurus*), 335 (in *Ovis aries*), 338 (in *Equus caballus*); 1903, 866 (syn. of *Fasc. magna*).

DISTOMA—Continued.

- texanicum* Leuck., 1892b, 797, 798 (for *texanicum*).
tineæ (Modeer, 1790) Rud., 1809a, 366.
tobiani Krøyer, 1846-53a, 592 (in *Ammodytes tobianus*).
todari delle Chiaje, 1841, 139.
tornatum Rud., 1819a, 684-685 (in *Coryphæna equiselis*; *C. hippuris*).—Braun, 1893a, 872.—Buttel-Reepen, 1902, 167, pl. 6, fig. 8.—Cobbold, 1860a, 28 (in *Megalops cyprinoides*); 1879b, 458, 461.—Cohn, 1902k, 47.—Dies., 1850a, 372-373 (syns. *F. caudata*, *F. coryphæna*, *F. coryphæna hippuridis*, *D. coryphæna*); 1859c, 431.—Duj., 1845a, 421-422.—Johnston, 1901, 337.—Lint., 1898c, 513-514, pl. 42, figs. 6-12; 1901, 415, 418, 442, 444, 452, 455, 469, fig. 310 (in *Coryphæna hippurus*, *Fundulus heteroclitus*, *Menidia notata*, *Roccus lineatus*); 1905, 328, 334, 355, 356, 372, 374, 398, 399, figs. 156-158 (in *Coryphæna equisetis*, *C. hippurus*, *Menticirrhus americanus*, *Synodus foetens*, *Tylosurus marinus*).—Looss, 1896b, 125 to (*Apoblema*); 1899b, 640.—Mont., 1891, 497.—Stoss., 1886, 12.—Wagener, 1860, 166, 176-178, 181, pl. 9, figs. 1-5 (in *Coryphæna* sp.).
torosum (Setti, 1897) Linst., 1903, 354.
torulosum Rud., 1814a, 104-105 (in *Silurus glanis*); 1819a, 111 (in *S. glanis*; Greifswald, October), 410.—Cobbold, 1860a, 28.—Dies., 1850a, 375.—Duj., 1845a, 464.—Kroyer, 1846-53a, 137 (in *S. gl.*).—Olfers, 1816, 46.—Stoss., 1886, 56.
totari E. Bl., 1847a, 309, for *todari*.
trachea (Montagu, 1811) Rud., 1819a, 114 (in *Phasianus gallus*; *Gryphæ*), 798 (sub *D. lineare*).
transversale (Rud., 1802) Rud., 1809a, 361-362 (in *Cobitis fossilis*); 1819a, 95, 368.—Braun, 1893a, 873.—Cobbold, 1860a, 22 (in *Acanthopsis* (*Cobitis*) *fossilis*, *Cobitis pæmiae*).—Dies., 1850a, 339.—Duj., 1845a, 463-464.—Kroyer, 1846-53a, 563, 573 (in *Cob. fos.*, *Botia tænia*).—Odhn., 1901, 484, 505.—Pavesi, 1881, 616.—Stiles & Hass., 1898a, 95.—Stoss., 1886, 56.
trapezium Leidy, 1891a, 414 (in *Pandion carolinensis*); 1904a, 235.—Stiles & Hass., 1894e, 414.
triangulæ Linst., 1878, 72, for *triangulare*.
triangulare Dies., 1850a, 351 (in *Merops apiaster*) (syn. *D. meropis*).—Braun, 1901, 561, 568; 1902b, 51, 52, 53, 93 (to *Plagiorchis*).—Cobbold, 1860a, 13.—Linst., 1878, 92 (*triangulæ*).—Looss, 1899b, 531, 631, 725 (type of *Megacetes*); 1900, 602 (type of *Eumegacetes*).—Stoss., 1892, 186; 1904, 2.
tricolor Stiles & Hass., 1894h, 160-162, fig. 2; 1895a, 729-737, pls. 1-2, figs. 1-8 (in *Lepus sylvaticus*, *L. americanus*; Maryland); 1895c, 700-701.
trifolium Braun, 1901g, 947 (in *Ardea cocoi*; Brazil); 1902b, 150-151, figs. 92, 93.
triganocephalum Kampmann, 1894b, 454, 457, misprint for *trigonocephalum*.
triglæ Rud., 1819a, 122 (in *Trigla cuculus*; *C. E. V.*).—Dies., 1850a, 399.
triglæ gurnardi Rathke, 1799, 68, 146, fig. 2a-c (in *Trigla gurnardus*).—Dies., 1850a, 362.—Rud., 1809a, 384 (syn. of *D. soleæforme*).
triglæ pini Dies., 1855, 64; 1858e, 343 (renamed *D. homœostomum*), based on Bellingham, 1844, 428.
trigonocephalum (Rud., 1802) Rud., 1809a, 415-418 (in *Ursus melis*, *Erinaceus europæus*, *Mustela putorius*, *M. vulgaris*) (includes *Plan. putorii*; *P. melis*; *Fasc. putorii*; *F. melis*; *Dist. melis*; *F. armata*; *D. armatum*); 1810a, 376; 1819a, 114.—Baird, 1853a, 55.—Bellingham, 1844a, 425.—Blainv., 1824a, 512 (type of *festucaire*).—Brand., 1891b, 265; 1891d, 16.—Braun, 1891, 100; 1892a, 618, 754, 784, 785, 786, 787, 797; 1893a, 866, 879, 911.—Cobbold, 1879b, 295, 298 (in *Erinaceus europæus*, *Mustela vulgaris*), 299.—Crep., 1837, 310, 311, 317, 326; 1845, 327, 337, 349b.—Dies., 1850a, 381-382 (syns. *D. armatum*; *Fasc. armata*; *F. melis*; *F. putorii*; *Plan. melis*; *P. putorii*); 1858d, 267 (larva=*Histrionella ephemera* Ehrenberg); 1858e, 344 (in *Erinaceus europæus*; *Mustela putorius*).—Duj., 1845a, 423.—Fil., 1855b, 24.—Gamb., 1896, 72.—Giebel, 1857, 265.—Kampmann, 1894b, 454, 457 (*triganocephalum*).—Kowal., 1896d, (3) 253 (in *Putorius foetidus*; *Dublan*).—Leuck., 1863a, 460, 471.—Linst., 1873, 101, 106 (larva=*Cerc. echinotoides* Fil.) in *Fœtorius putorius*; 1879, 185, pl. 12, fig. 31.—Looss, 1885b, 13, 18, 21, 37, 38, 50, pl. 23, figs. 6, 17; 1894a, 227; 1902m, 804, 805.—Mol., 1858, 129-130;

DISTOMA—Continued.

- 1859, 825, 846 (in *Erinaceus europæus*; Padua); 1861, 213–216, pl. 3, fig. 2.—Mont., 1888a, 40, 44, 65; 1893, 75, 77.—Nord., 1840, 621 (to Fasc.).—Olfers, 1816, 46.—Rail., 1893a, 365.—Schuberg, 1895, 178.—Sieb., 1854, 23.—Sons., 1893, —.—Stoss., 1890, 51; 1892, 29–30 (to Echinost.).—Wagener, 1857, 24, 42.—Reported for *Canis vulpes*; *Felis catus domesticus*; *Fœtorius lutreola*; *F. putorius*; *F. vulgaris*; *Lutra vulgaris*; *Meles europæus*; *Meles taxus*; *Mustela foina*; *Mustela martes*; *M. putorii*; *M. vulgaris*; *Plecotus communis*; *Putorius vulgaris*; *Ursus meles*; *Paludina vivipara*.
- trilobum* Rud., 1819a, 104–105, 392 (in *Pelecanus carbo*; Mus. Vien.).—Dies., 1850a, 310 (to Hemist.).—Duj., 1845a, 449.
- tringæ helveticæ* Rud., 1819a, 120 (in *Tringa helvetica*; C. E. V.).—Dies., 1850a, 386 (syn. of *D. cinctum*).—Duj., 1845a, 447.—Stoss., 1892, 187 (in Tr. helv.; Vienna).
- truncatum* Perroncito, 1882, 284, for *D. truncatum* [Erc.].
- truncatum* (Abildg., 1806) Rud., 1814a, 105–106; 1819a, 122 (in *Perca lucioperca*).—Dies., 1850a, 358 (?syn. of *D. tereticolle*).—Kroyer, 1838–40a, 41, 579 (“of Leuck.,” in *Lucioperca sandra* Cuv.).—Nord, 1832a, 88.
- truncatum* (Rud., 1819) Rail., 1886, 296–297; 1893a, 364 (syns. *D. conus* Crep., 1825, [not Gurlt, 1831]) to (*Brachylaimus*).—Askanazy, 1901, 72.—Braun, 1893e, 349, 350, 352, 353, 354; 1893f, 384, 385, 387, 389, 390, 392, 424, 425, 427 (syns. *D. conus* Crep., *D. campanulatum* Erc.); 1893g, 802, 803 (syn. *D. campanulatum* Erc., 1875); 1894g, 129; 1894i, 606.—de Jong, 1896a, 2, 3, 4, 5, 6, 7, fig. 3; 1897a, 245–246.—Kholodk., 1898, 29.—Looss, 1896b, 97; 1899b, 565 to (*Metorchis*).—Moniez, 1896, 137 to (*Dicrocoelium*), 139 (=conus Crep.), 140, 141.—Mueh., 1898, 15, 24, 25.—Neumann, 1892, 529; 1892, 544.—Pease, 1898, 82.—Perroncito, 1886, 250.—Ratz, 1898, 68; 1900, 141 (in cat.).—Stiles & Hass., 1894e, 421–434, pl. 3, figs. 11–12, to (*Dicrocoelium*) (in *Phoca vitulina*, *Felis catus dom.*, *Canis fam.*, *C. vulpes*, *Halichærus fœtidus*, *Gulo borealis*; Germany, Holland, Italy, France) (syns. *D. conus* Crep.; *D. lanceolatum* of Mehlis, of Dies., 332; *D. campanulatum* Erc.).—Ward, 1895, 243 (in part, syn. of *D. felineum* Riv.), 341 (in *Canis fam.*).—Zwaardemaker, 1890, 197–203, pl. 3.
- truncatum* Erc., 1859a, 382 (in *Canis familiaris*).—Braun, 1893a, 875; 1893e, 349 (“Ercolani 1846”), 351; 1893f, 386, 424 (“Ercolani 1846, in dog; Bologna), 425, syn. of *D. truncatum* (Rud.).—de Jong, 1887a, 57; 1896a, 6, 7, 11, figs. 1a, 1b.—Leuck., 1889, 357.—Perroncito, 1882, 284 (*truncatum* in dog.—Sons., 1889, 276, 277, 280; 1889, 281 (syn. of *D. conus* Crep.).—Stoss., 1892, 25 (syn. of *D. conus* Crep.).
- truncatum* Leuck., 1842, 34–35, pl. 1, fig. 8a–b (in *Sorex fodiens*).—Braun, 1893a, 876; 1893d, 467; 1901e, 342.—Cobbold, 1860a, 8; 1879b, 296.—Dies., 1850a, 374 (in *Sorex daubentonii*).—Duj., 1845a, 438 (in *S. fodiens*).—Sons., 1889, 276 (in *S. fod.*).—Stoss., 1892, 36–37 (in *Crossopus fodiens*).
- trutta* Dies., 1858e, 356 (in *Salmo trutta*), refers to Moul., 1856, 217.—Braun, 1893a, 871.
- tubarium* Rud., 1819a, 111–112, 410 (in *Sciæna umbra*; Spezia, August).—Carus, 1884, 125.—Cobbold, 1860a, 28.—Dies., 1850a, 375.—Duj., 1845a, 457.—Stoss., 1886, 56 (in *Umbrina vulgaris*).
- tubiporum* Braun, 1900, 388–389 (in *Vespertilio* sp.); 1900, 232–233, pl. 10, figs. 8, 9.
- tubulatum* Rud., 1819a, 675–676 (in *Muræna* sp.; Brazil).—Cobbold, 1860a, 22.—Dies., 1850a, 337.—Duj., 1845a, 468.—Stoss., 1886, 56.
- tumidulum* Rud., 1819a, 95, 369 (in *Syngnathus hippocampus*; Vienna).—Bellingham, 1844a, 423.—Ben., 1870, 89, pl. 5, fig. 5.—Carus, 1884, 129.—Cobbold, 1860a, 22.—Dies., 1850a, 339–340; 1858e, 333 (in *Syngnathus acus*; Ireland).—Duj., 1845a, 469.—Kroyer, 1846–53a, 704 (in *Siphost. acus* L.).—Odhn., 1901, 484, 503.—Pag., 1862, 305.—Stoss., 1886, 56 (in *Hippocampus guttatus*, *Syngnathus acus*).
- turdi* Rud., 1819a, 120 (in *Turdus saxatilis*; C. E. V.).—Dies., 1850a, 361 (syn. of *D. mesostomum*), 391 (syn. of *D. nephrocephalum*).
- turgidum* Brand., 1888, 247–251, pl. 17, figs. 2–3 (in *Rana esculenta*).—Braun, 1892a, 568, 578, 579, 584, 700, 720, 721, 727, 737; 1893a, 877, 881, 893; 1895b, 11; 1900h, 6.—Galli-Valerio, 1898n, 373.—Kowal., 1894, 3.—Looss, 1892, 101; 1894a, 1, 173; 1899b, 623, 775 (type of *Brandesia*).—Mont., 1893, 84, 85.—Mueh., 1898, v. 1 (1), 23, 30, 102–105, 114, fig. 21, 28.

DISTOMA—Continued.

- tursionis* Marchi, 1873, 304, pl. 5, fig. b (in *Delphinus tursio*).—Carus, 1884, 125.—Linst., 1886, 125.—Par., 1896, 1-3 (syn. of *D. (Dicrocoelium) longissimum* Poir.).—Poir., 1886, 30.—Stoss., 1892, 37 (in *Del. tur.*).
- umblæ* (Fabricius, 1780) Zed., 1803a, 212.—Dies., 1850a, 343 (syn. of *D. seriale*) (in *Salmo umbla*; Greenland; kidneys).—Rud., 1809a, 369.
- umbrinæ* Stoss., 1885, 159, pl. 4, fig. 18 (in *Umbrina cirrhosa*; Trieste); 1886, 26; 1887, 91; 1898, 36-37.—Barbagallo & Drago, 1903, 410 (in *Umbrina cirrhosa*; Catania).—Braun, 1892a, 728, 737.—Lint., 1900, 290.—Luehe, 1900, 487.—Mont., 1893, 94.
- uncinatum* Zed., 1803a, 221 (in *Fulica chloropus*).—Ben., 1858a, 1861a, 85.—Braun, 1891, 101; 1893a, 874.—Crep., 1837, 316.—Dies., 1850a, 384 (syns. *D. chloropodis*, *Fasc. crenata*) (in *Gallinula chloropus*).—Duj., 1845a, 428.—Mueller, 1897, 22-23, pl. 3, fig. 6.—Olfers, 1816, 46.—Rud., 1809a, 420-421 to (*Echinost.*); 1814a, 102; 1819a, 115, 417-418.—Sieb., 1854, 23.—Stoss., 1892, 172 (syn. of *Echinost. cinctum*); 1898, 53.—Also reported for *Ascolopax gallinago*.
- unicum* Looss, 1896b, 44-49, pl. 3, figs. 20-24 (in *Trionyx nilotica*; Cairo, Egypt); 1898, 461 (renamed *D. reniferum* Looss); 1899b, 590 (=renifera, type of *Astia*).—Luehe, 1899, 531.
- unicum* Mol., 1859, 835-837, pl. 3, fig. 1 (in *Centrolophus pompilius*; Padua).—Braun, 1893a, 910.—Carus, 1884, 124.—Luehe, 1900, 488, 492.—Stoss., 1886, 17.
- urcatum* Luehe, 1900, 489 (for *D. furcatum*).
- vagus* Leidy, 1850, 304-309, pl. 43, figs. 2-16 (in *Helix alternata*, *H. albolabris*) (*D. helicis* Leidy, 1847, renamed); 1857, 44 (syns. *D. helicis* Leidy; *D. pericardium* Crep.; *Cercariæum helicis alternatæ* Dies.; *C. vagans* Dies.).—Ben., 1858a, 1861a, 175, 186, 205.—Dies., 1855a, 398, (to *Cercariæum*); 1858d, 278 (to *Cercariæum*).—Fraip., 1880c, 417.—Mont., 1888a, 40.
- valdeinflatum* Stoss., 1883, 114, pl. 1, fig. 4 (in *Gobius jozo*; Trieste); 1886, 35.—Braun, 1893a, 871.—Carus, 1884, 127.—Lint., 1898c, 527-528, pl. 47, figs. 10-14, pl. 48, figs. 1-2; 1901, 416 (in *Alutera schœpfii*, *Menidia notata*, *Spheroides maculatus*), 421, 444, 464; 1905, 328, 334, 359, 366, 372, 379, 386, 393, 396, 400, 401, 409, 414 (in *Cynoscion nebulosus*, *Leiostomus xanthurus*, *Menticirrhus americanus*, *Micropogon undulatus*, *Monacanthus hispidus*, *Opsanus tau*, *Orthopristis chrysopterus*, *Paralichthys albiguttus*, *Rachycentron canadus*, *Siphostoma fuscum*; *Trachinotus carolinus*).—Linst., 1903, 354 (syn. of *D. cesticillus* Mol.).—Looss, 1894a, 252 (syn. of *Echinost. cesticillus*); 1899b, 697 (young of *Stephanost. cesticillus*).—Mont., 1891, 121; 1893, 61, 158, 160, 161.—Nicoll, 1907, 69 (*valdemflatum*).
- valdemflatum* Nicoll, 1907, 69 (for *valdeinflatum*).
- validum* Linst., 1886, 124-128, figs. 23-27 (in *Delphinus* sp.; South Atlantic); 1889a.—Braun, 1892a, 591, 603, 608; 1893a, 873.—Buttel-Reepen, 1902, 169, 171, 172, pl. 6, fig. 24.—Stoss., 1892, 15-16 (in *Delphinus* sp.; Atlantic).
- vallei* Stoss., 1896, 129, fig. 2 (in *Falco subbuteo*); 1898, 33.—Looss, 1902m, 746.
- variabile* Leidy, 1856, 44 (in *Tropidonotus sipedon*).—Braun, 1893a, 876.—Dies., 1858e, 352-353.—Luehe, 1900, 559-561.—Pratt, 1903, 31.—Stoss., 1895, 232-233 (in *Trop. sip.*; Philadelphia).—Volz, 1899, 234, 235.—West, 1896, 323.
- varica* Zed., of Ben., 1870, 69, see *varicum*.
- varicum* (Mueller, 1784) Zed., 1803a, 217.—Bellingham, 1844a, 424.—Ben., 1870, 25.—Braun, 1892a, 643, 735.—Cobbold, 1860a, 24.—Dies., 1850a, 368; 1858e, 342 (in *Salmo salar*).—Duj., 1845a, 465.—Hausmann, 1897b, 4, 6, 20, 22 (in *Trutta salar*).—Juel, 1889, 34.—Kroyer, 1843-45a, 581; 1846-53a, 54 (in *Salmo salar* L., *Thymallus vulgaris* Cuv.).—Levin., 1881, 5; 1881a, 54-56, 58, 61, 69, pl. 2, figs. 1-2 (in *Cottus scorpius*, *Gadus ovak*; immature forms in *Harmothoe imbricata*, *Cottus scorpius*).—Looss, 1896b, 136; 1899b, 639 to *Hemiusurus*; 1901, 438.—Luehe, 1901, 479.—M'Intosh, 1864, 149-150 (of *Rud.*) (in *Salmo salar*).—Mont., 1890, 424; 1891, 513; 1893, 43, 61, 85, 88, 95, 106, 107, 180, 182, 183, 184.—Mueller, 1788, 43.—Nord., 1840, 620 (to *Fasc.*).—Olfers, 1816, 46.—Olss., 1868, 40; 1876, 17.—Rud., 1809a, 396-397; 1810a, 376; 1819a, 106.—Stoss., 1886, 22; 1902, 582.—Reported for *Anguilla vulgaris*; *Conger conger*; *C. vulgaris*; *Oreogonus wartmanni*; *C. oxyrhynchus*; *Gadus euxinus*; *G. minutus*; *Hippoglossus maximus*; *Labrus maculatus*; *Lota molva*; *Merlangus vulgaris*; *Molva abyssorum*; *M. vulgaris*.

DISTOMA—Continued.

- variegatum* Rud., 1819a, 99, 378-379 (in *Rana esculenta*; Berlin, October).—Baird, 1853a, 53.—Ben., 1870c, 141.—E. Bl., 1847, to *Brachylemus*.—Braun, 1897a, 1459; 1892a, 784 (*varigatum*); 1893a, 876, 881, 911.—Cobbold, 1860a, 17.—Crep., 1829, 58-59; 1837, 310, 322, 326; 1839, 288.—Darr, 1902, 654.—Dies., 1850a, 354-355 (to *Brachylemus*); 1858e, 339 (in *Rana pipiens*, *Pelophylax esculentus*).—Duj., 1845a, 416-417.—Gronkowski, 1902a, 511, 515, 518-519, 531-532 (4, 8, 11-12, 24-25), pl. 13, figs. 3, 11, 12.—Hausmann, 1897b, 27.—Kamensky, 1900a, 8.—Leuck., 1863a, 490.—Leidy, 1851, 207, 242; 1856, 44.—Linst., 1883, 309; 1886, 34; 1887, 97.—Looss, 1892, 65, 93 (*varigatum*); 1893b, 812, 815, 818, 819, fig. 3; 1894a, 2, 3, 65, 68, 71-82, 113, 114, 115, 116, 118, 119, 120, 121, 125, 127, 135, 136, 146, 150, 159, 163, 167, 173, 175, 179, 182, 190, 193, 199, 204, 208, 209, 210, 212, 214, 215, 217, 221, 224, 226, 227, 230, 242, 256, 266, 268, pl. 2, figs. 43-48, pl. 7, figs. 134-146 (syns. *D. cylindricum*, *D. cylindraceum*, *Monost. bombynae*, *M. ellipticum*) (in *Rana esculenta*, *Bombinator igneus*; *Bufo cinereus*); 1896b, 19; 1899b, 556, 661 (type of *Hæmatolœchus*), 602, 603; 1901, 192; 1902m, 732 (type of *Pneumocœcus*), 810.—Luehe, 1899, 533; 1901, 58.—Mehlis, 1831, 177-179.—Mol., 1859, 828-829, pl. 3, fig. 2 (syn. *Brachylemus* v.) (in *Pelophylax esculentus*; Europe).—Mont., 1892, 715.—Mueh., 1898, 26.—Pag., 1857, 41-42, pl. 5, fig. 2 (in green frog).—Poir., 1885, 102.—Sons., 1893, 185, 188, 189 (in *Rana esculenta*).—Staff., 1900, 405, 409; 1902, 482 (in Canadian frogs and toads); 1902, 24 Nov., 895, 904 (American representatives); 1903, 15 Dec., 901; 1905, July, 50-51.—Stiles & Hass., 1898a, 84; 1902d, 20.—Stoss., 1889, 62; 1896, 128; 1898, 35.—Wagener, 1857, 25, 102, pl. 21, figs. 1-2.—Wright, 1879, 8.—Also reported for *Bufo vulgaris*, *Rana halecina*, *R. temporaria*, *Triton alpestris*.
- variegatum* Looss, 1892, 93, for *variegatum*.—Braun, 1892a, 784.
- [*variolosus* Gærtner in Pallas (a tunicate)].—Lamarck, 1816, 101.
- varium* Eysenhardt, 1829, 148-151 (in *Gadus merluccius*).—Dies., 1850a, 342 (syn. of *D. caudiporum*), 371 (syn. of *D. appendiculatum*), 372 (syn. of *D. grandiporum* and of *D. rufoviride*).—Mol., 1859, 826 (syn. of *D. grandiporum*).—Mont., 1891, 498.—Wagener, 1860, 166.
- velella* Filippi (1843), 66, pl. 5, fig. 12 (in *Veleva spirans*; Naples).—Dies., 1850a, 379, 659 (renamed *D. megacotyle*).—Kœlliker, 1849, 53.—Mont., 1888, 198, 199; 1893, 123.
- veliporum* Johnston, 1902, 329, for *veliporum*.
- veliporum* Crep., 1837a, 310 (in *Squalus griseus*), 318.—Ariola, 1899, 7, 9 (syns. *D. insigne* Dies., *D. microcephalum* Baird, *D. scymni* Risso).—Braun, 1892a, 567, 586, 624, 625, 647, 682, 686, 690, 735; 1893a, 873, 879, 910; 1893d, 466.—Carus, 1884, 129.—Cobbold, 1860a, 25 (in *Prionodon milberti*, *Hexanchus griseus*).—Darr, 1902, 666, 667, 669, 683.—Dies., 1850a, 347 (syn. *Fasc. squali grisei*) (in *Prionodon milberti*; *Hexanchus griseus*; *Panormi*).—Duj., 1845a, 471 (in *Squalus griseus*).—Jægers., 1900, 72, 73, 74; 1900, 736.—Johnston, 1902, 329 (*veliporum*).—Kerbert, 1881a, 541.—Linst., 1903, 279, 354.—Lint., 1898, 521-522; 1901, 416 (in *Raja lævis*), 421, 431.—Loennberg, 1891, 71; (1898), 4.—Looss, 1894a, 152, 211; 1899b, 570 (thinks this form may belong to *Azygia*).—Mont., 1888a, 7; 1889, 69; 1889, 70 (in *Raja* sp.; *Porto Huite*, Chile); 1889, 321; 1892, 5, 6, 7; 1893, 9; 1893, 33, 34, 36, 43, 52, 82, 102, 107, 113, 120, 122, 147, 191, pl. 1, fig. 6, pl. 8, figs. 122-131.—Ofenheim, 1900, 164.—Olss., 1868, 22; 1876, 13; 1896, 508 (includes *D. insigne*, *D. microcephalum*).—Poir., 1885, 22, 37, 42, 44, 48, 49, 53, 74, 82, 106, 127, 142.—Stoss., 1886, 19; 1890, 51; 1901, (9) 97, pl. 6, fig. 1 (in *Notidanus griseus*; *Triest*); 1904, 198, 199.—Villot, 1878, 2 (in *Hexanchus griseus*, *Prionodon milberti*).—Wagener, 1852, 543; 1857, 28; 1860, 174.—Reported for *Acanthias vulgaris*, *Carcharias milbertii*, *Centrolophus pompilus*, *Chimæra monstrosa*, *Echinorhynchus spinosus*, *Heptanchus cinereus*, *Hexanchus griseus*, *Raja batis*, *R. clavata*, *R. fullonica*, *R. lævis*, *R. lineata*, *R. radiata*.
- ventricosa* Ben., 1871a, 68, pl. 4, fig. 11.—Braun, 1891d, 423.—Mont., 1891, 510 (syn. of *Apolemia ocreatum* Rud.).
- ventricosum* (Pallas, 1774) Mont., 1893, 26, 27.—Braun, 1893b, 184.—Stoss., 1900, 8.—Reported for *Pimelepterus* sp.
- ventricosum* Rud., 1819a, 108, 398 (in *Clupea alosa*; Arimini, April).—Ben., 1858a, 1861a, 179, 193; 1870, 68.—Bl., 1891, 468-478, fig. 36.—Buttel-Reepen, 1902, 166, 167, 168, pl. 6, figs. 19-22.—Carus, 1884, 125.—Cobbold, 1860a, 27.—Darr, 1902, 666.—Dies., 1850a, 369 (in *Alosa vulgaris*; Arimini).—Duj., 1845a,

DISTOMA—Continued.

- 465.—Hausmann, 1897a, 4, 6, 20, 23 (in *Al. vulg.*).—Jackson, 1888, 647.—Kroyer, 1846–53a, 218 (in *Alosa finta* Cuv.).—Lander, 1904a, 1.—Mont., 1887, 87; 1891, 12 (syn. of *Apoblema appendiculatum*), 16, 17 (p. p. syn. of *Apoblema ocreatum* (Rud.) Mont.); 1891, 496, 497, 498, 499, 500, 501, 502.—Nicoll, 1906, 525 (in *Gasterosteus aculeatus*).—Sons., 1890, 12–13; 1891, 259 (syn. of *D. ocreatum* Mol.) (in *Alosa sardina*).—Stoss., 1886, 11; 1887, 90; 1898, 29; 1902, 582.—Wagener, 1860, 166–172, 173, 175, 179, pl. 8, figs. 1–7 (in *Clupeiden*).—Also reported for *Anguilla vulgaris*, *Clupea* sp., *C. sprattus*, *Motella communis*, *M. mustela*.
- ventricosum* Stoss., 1898, 29 (syn. of *Apoblema ocreatum* Rud.).
- ventricosum* Rud. of Wagener, 1860, 166–172, 173, 175, 179, pl. 8, figs. 1–7 (in *Clupeidæ*).—Braun, 1891d, 423.—Levin., 1881a, 59 (syn. of *D. appendiculatum* Rud., Mol.).—Luehe, 1901, 396, 397, 399.—Mont., 1891, 499, 501, 502, 505 (syn. of *Apoblema appendiculatum* Rud.).
- ventricosum minor* Shipley, 1900, 540 (in *Pimelepterus* sp.; New Britain).
- vereticolle lucii* Rud., 1809a, 440 (misprint for *D. tereticolle lucii*).
- verrucosum* Busch, 1851, 100, pl. 15, fig. 11 (in *Ophidium barbatum*).—Braun, 1893a, 873.—Carus, 1884, 128.—Mont., 1893, 27, 94, 102.—Stoss., 1886, 19 (in *Oph. barb.*).
- verrucosum* Lint., 1892, 96–97, pl. 6, figs. 33–35 (in *Larus californicus*).
- verrucosum* Mol., 1859, 842–844 (in *Labrax lupus*; Rhedoni, Padua) (includes *D. labracis* Duj., 1845a, 398).—Braun, 1892a, 579, 642, 720, 728, 737.—Lander, 1904a, 8.—Odhn., 1901, 513, 514.—Par., 1899, 5; 1902, 4 (syn. of *Dicrocoelium labracis*).—Stoss., 1886, 31; 1886, 48 (in *Labrax lupus*; Triest); 1898, 46.
- verrucosum* Poir., 1885, 10–11, 16, 29, 60, 74, 79, 81, pl. 23, fig. 4 (in *Thynnus*).—Braun, 1892a, 576, 608, 609, 873; 1893d, 466.—Jägers., 1900b, 72.—Lander, 1904a, 8.
- verrucosum* Frølich.—Wolffhüegel, 1900, 136 (for *Monost. ver.*?).
- vespertilionis* (Mueller, 1784) Zed., 1803a, 214.—Dies., 1850a, 387 (syn. of *D. lima*).—Kolenati, 1857, 12.—Rud., 1809a, 427 (syn. of *D. lima*).—Stoss., 1904, 2.
- vexans* Braun, 1901, 947 (in *Turdus merula*); 1902b, 151–152, figs. 94–95.
- vibex* Lint., 1900a, 269, 281, 291–292, pl. 38, figs. 48–51 (in *Spheroides maculatus*); 1901b, 416 (in *Sph. mac.*; Woods Hole, Mass.), 419, 464; 1905d, 328, 334, 402, fig. 188.
- viperæ* Linst., 1877, 186 (in *Pelias berus*).—Braun, 1893a, 870.
- virgula* Fil., 1837a, 338, fig. 5 (in *Paludina impura*, *Valvata piscinalis*; Ticini); 1855b, 5.—Dies., 1850a, 296 (to *Cerc.*).—Moul., 1856a, 161 (to *Cerc.*).
- vitellatum* Linst., 1875, 189–190 (in *Totanus hypoleucos*); 1887, 104.—Braun, 1902b, 50 (to *Plagiorchis*).—Stoss., 1892, 154 (in *Actites hypoleucos*; Ratzeburg); 1892, 12, to (*Brachylaimus*); 1904, 2 (*vitellatus*).
- vitellilobum* Olss., 1876, 14 (in *Rana temporaria*).—Braun, 1893a, 873, 881; 1893d, 466.—Linst., 1887, 97, 98, 102.—Looss, 1894a, 56, 57, 62, 82; 1899b, 606–607 (whether a good species or only a variety of *Gorgoderia cygnoides* can not be determined from Olsson's description); 1902m, 851 (perhaps a *Gorgoderina*), 857 (to *Gorgoderina* as possible).—Sons., 1893, 187 (in *Rana esculenta*).—Stoss., 1889, 67.
- vitellousum* Lint., 1900a, 269, 282, 290, pl. 37, figs. 38–39 (in *Merluccius bilinearis*; Woods Hole, Mass.); 1901b, 16, 420, 435, 436, 437, 439, 440, 445, 446, 449, 451; 458, 460, 462, 464, 471, 474, 481, 482, 483, 485, 486, figs. 333–340; 1905d, 329, 335, 348, 351, 357, 366, 369, 378, 382, 385, 388, 390, 393, 396, 397, 399, 401, 404, 405, 409, 413, figs. 176–178.—Johnstone, 1907, 182–185, fig. 15 (in *Pleuronectes flesus*; Piel).—Reported for *Anguilla chrysypa*, *Bairdiella chrysura*, *Brevoortia tyrannus*, *Clupea harengus*, *Cynoscion regalis*, *Dasyatis centrura*, *Decapterus macarellus*, *Lagodon rhomboides*, *Leiostomus xanthurus*, *Leptocephalus conger*, *Limanda ferruginea*, *Menticirrhus americanus*, *M. saxatilis*, *Merluccius bilinearis*, *Micropogon undulatus*, *Monacanthus hispidus*, *Opsanus tau*, *Orthopristis chrysopterus*, *Paralichthys albiguttus*, *P. dentatus*, *Pomatomus saltatrix*, *Pomolobus pseudoharengus*, *Pseudopleuronectes americanus*, *Prionotus scitulus*, *P. tribulus*, *Sciaenops ocellatus*, *Sarda sarda*, *Scomber scombrus*, *Spheroides maculatus*, *Stenotomus chrysops*, *Tautoglabrus adspersus*, *Trachinotus carolinus*, *Tylosurus marinus*).

DISTOMA—Continued.

[*vitreum* Sars (a tunicate).]

vitrixa Targioni Tozzetti, 1873, 335–336 (in vitrine).

vitta Duj., 1845a, 418 (in *Mus sylvaticus*: Rennes) to (*Brachylaimus*).—Braun, 1901e, 340.—Cobbold, 1879b, 316.—Dies., 1850a, 396.—Stoss., 1892, 13 (in *Mus sylv.*; Rennes).

viverrini Poir., 1886, 27–29, pl. 3, figs. 1–3 (in liver of *Felis viverrinus*).—Braun, 1892a, 699; 1893a, 875; 1893f, 425; 1893, 350, 352, 353.—Looss, 1899b, 675.—Mont., 1888a, 58; 1893, 43, 83, 86, 95, 102, 105, 106, 107.—Stiles & Hass., 1894e, 427–428 to (*Dicrocoelium*).—Stoss., 1892, 24.

vivipara Ben., 1870, 1871a, 28, pl. 3, figs. 3–4 (in *Mugil chelo*: Belgium).—Braun, 1891d, 424 (in *Mugil cephalus*); 1892a, 784.—Hahn & Lefèvre, 1884a, 516 (*viviparum*).—Looss, 1902, 129, 137.—Sons., 1891, 253, 254–255 (in *Mugil cephalus*).—Stoss., 1898, 51 (in *Mugil chelo*: Trieste).

viviparæ fasciatæ Linst., 1877b, 186 (in *Vivipara fasciata*); 1878a, 322.

viviparum Olss., 1868, 28–29, pl. 4, figs. 73–75 (in *Pleuronectes microcephalus*: Scandinavia).—Braun, 1892a, 785, 786; 1893a, 873.—Looss, 1901, 439, 442.—Mont., 1893, 82.—Nicoll, 1907, 82.—Odhn., 1902, 59, 61.—Sons., 1891, 255 (in *Pleuronectes microcephalus*).—Stoss., 1886, 38.

volvens Nord., 1833, 321, pl. 19, for *Diplost. volvens*.

vulpina Abildg., 1790, 63–64, pl. 5, figs. 6 a–c (syn. *Alaria*).—Baird, 1853a, 46.—Brand., 1888a, 60 (syn. of *Hemist. alatum*).—Dies., 1850a, 308 (syn. of *Hemist. alatum*).—Nitzsch, 1819, 399 (syn. of *Holost. alatum*).—Rud., 1809a, 403.

wachniæ Rud., 1819a, 122, 427, based on Tilesius, 1810, 363, 374, pl. 19, figs. 8–10 (in *Gadus wachnia*).—Cobbold, 1858b, 157 (= *D. simplex*, *D. fulvum*).—Dies., 1850a, 398 (in *Gadus wachnia*).—Rud., 1819a, 122, 427.

wedlii Cobbold, 1860a, 18 (*D. pelophylacis esculenti* renamed) (in *Rana esculenta*).—Stoss., 1889, 71.

westermanni Kerbert, 1881a, 529–578, pl. 26–27, for *westermanii*.

westermanii Kerbert, 1878a, 11 Nov., 271–273 (in *Königstiger*: Amsterdam).—Bettend., 1897a, 7 (*westermanni*); 1897b, 311 (*westermanni*).—R. Bl., 1891a, 610–611 (*westermanni*) (syn. *D. ringeri*); 1895, 34–39, 188; 1895, 649–932, figs. 47–116.—de Bonis, 1882, 148 (*westermanni*).—Brand., 1888a, 50 (*westermanni*); 1890a, 577 (*westermanni*); 1891d, 7 (*westermanni*).—Braun, 1892a, 586, 588, 589, 597, 602, 604, 605, 607, 622, 628, 644, 645, 654, 664, 665, 666, 668, 669, 671, 675, 677, 679, 682, 699, 700, 701, 703, 705, 707, 711, 712, 713, 715, 717, 718, 719, 723, 724, 725, 727, 728, 730, 733, 735, 736, 752, 753, 755, 784, 785 (*westermanni*); 1893a, 876, 882 (*westermanni*); 1893b, 185 (*westermanni*); 1895b, 142–143, fig. 58 (*westermanni*); 1899g, 491, 492 (type of *Paragonimus*) (*westermanni*); 1900h, 3, 5, 6 (*westermanni*); 1901e, 329, 330, 332, 333 (*westermanni*); 1903, 3 ed., 155 (*westermanni*) (to *Parag.*).—Buttel-Reepen, 1902, 185 (*westermanni*).—Cobbold, 18801, 139–140, pl. 10, figs. 1–3 (*westermanni*); 1884g, 976 (*westermanni*).—de Does, 1903, 409–412 (*westermanni*); 1905, 278–279 (case in dog) (*westermanni*).—Dubler, 1892a, 78 (in panther) (*westermanni*).—Fischer, 1883a, 8, 29 (*westermanni*).—Gamb., 1896a, 63 (syn. of *D. pulmonale*) (*westermanni*).—Gronkowski, 1902a, 522 (15) (*westermanni*).—Huber, 1896a, 576, 577 (syn. of *D. pulmonale*) (*westermanni*).—Inouye, 1893a, 79–86; 1897a, 175–178 (2 brain cases); 1903a, 120, 122, 123 (*westermanni*).—Jackson, 1888, 643 (*westermanni*).—Juel, 1889, 14, 33, 37 (*westermanni*).—Kath., 1894a, 143 (*westermanni*).—Katsurada, 1900d, 506–523, figs. 1–3, pl. 14–15, figs. 1–8 (Japan) (*westermanni*); 1902b, 50–52; 1904, v. 2 (3), 22; 1904f, 148, 157 (occurs in cats and dogs) (*westermanni*).—Kiyono, Suga & Yamagata, —, 261, 262, 263.—Lander, 1904a, 10, 16 (*westermanni*); 1904, April 9, 580.—LeCount, 1904, 580 (eggs).—Linst., 1890f, 178 (*westermanni*).—Looss, 1885b, 6, 7, 10, 14, 15, 16, 17, 26, 27, 36, 37 (*westermanni*); 1894a, 118, 180, 198 (*westermanni*); 1899b, 560, 561 (type of *Polysarcus*) (*westermanni*); 1905, 84 (to *Parag.*) (*westermanni*).—MacCallum, 1899, 708 (*westermanni*).—Mackenzie, 1904a, 1133–1135 (case in Portland, Oreg.); 1904b–e; 1904, May 7, 745, 758, 901; 1904, June 15, 193; 1905, Jan. 10, 790 (case) (*westermanni*).—Manson, 1901, 541 (syn. of *D. ringeri*) (*westermanni*).—Moniez, 1896, 86, 144–152 (*westermanni*).—Mont., 1888, 18, 24, 32, 33, 36, 39, 54, 56, 64 (*westermanni*); 1893, 1–229, pl. 1–6; 1893, 6, 26, 36, 38, 155 (*westermanni*).—Poir., 1885, 26, 27, 149 (*westermanni*).

DISTOMA—Continued.

- mani).—Pratt, 1898, 361.—Shaw, 1901, 1027 (westermanni).—Simon, 1897, 259 (syn. of *D. pulmonale*) (westermanni).—Sons., 1895, v. 9, 291–292; 1896, 297, 302 (westermanni); 1896, July, 534–535.—Stiles, 1894i, 57–58, figs. 1–4 to (*Mesogonimus*): 1894k, 5 pp., 4 figs.; 1894l, 107–110, figs. 1–4 (Ward's case in U. S. A.); 1894m, 756; 1898, 96.—Stiles & Hass., 1898a, 96 (westermanni); 1900a.—Stoss., 1892, 32 (to *Mesogonimus*) (westermanni).—Taniguchi, 1903, Dec., 100, 102 (westermanni).—Tyson, 1903, 3 ed., 1181 (westermanni).—Ward, 1894, 355–357, 358–360 (westermanni); 1894, 362–364 (westermanni); 1895, Feb., 87–89 (westermanni in U. S. A.); 1895, Mar. 2, 236–239, figs. 1–3 (westermanni); 1895, 304–309 (westermanni); 1895, 238 (man, tiger, cat, dog), 244–246, figs. 4–6 (westermanni); 1895, 328 (in *Homo*), 341 (in *Canis familiaris*); 1896, 5 Nov., 709 (westermanni); 1903, 867 (to *Parag.*).—Weber, 1891, lxxxiii–lxxxiv (tiger, Sumatra) (westermanni).—Ziegler, 1883, 544, 556, 557 (westermanni).
- westermanni* Leuck., 1889, 404, 408, 409, for *westermanni*.
- winogradoffi* Jaksch, 1897a, 219 for *sibiricum*.
- xanthosomum* Crep., 1846a, 138 (in *Colymbus septentrionalis*; Germany).—Braun, 1892a, 679, 699; 1893a, 875; 1893, 353; 1893f, 427; 1902b, 7 (to *Metorchis*), 8, 9.—Cobbold, 1860a, 15.—Dies., 1858e, 355 (in *Podiceps minor*).—Linst., 1873, 101.—Looss, 1896b, 58.—Stoss., 1892, 187.—Wagener, 1857, 22, figs. 3, 4 (in *Pod. mi.*).
- zschokkei* Volz, 1899, 231–234, 237, pl. 20 (in *Heterodon platyrhinus*).—Braun, 1901, 944; 1902b, 65.—Luehe, 1899, 532, 533; 1900, 561.—Pratt, 1903, 25.
- DISTOMACEA Weinland, 1859, 280 (family of Trematodes).—Stiles & Hass., 1898a, 87, 90.
- DISTOMATA Zed., 1800a, 163, pl. of *Distoma*.—Bojanus, 1817b, 275, 276.—Jackson, 1888, 653.—Loomis, 1885, 394.—Wyman, 1851, August, 65–66 (development).
- hominis* Taylor, 1884, 27 issue, 44–54, figs. 1–5, apparently used as “distomes of man.”—Ward, 1895, 246 (syn. of *Fasc. hepatica*).
- DISTOMATIDÆ Gamb., 1896a, 73, family name (*Distoma*).
- [DISTOMATINÆ Senn, 1903 [flagellates].]
- DISTOMATOSIS (= any infection with distomes, s. lat.): Anacker, 1885e, 438; 1889a, 22.—d'Avrilly, (1836), 208–212 (pourriture in ruminants).—Benion, 1874a, 632–646.—Bouley, —, 21–30.—de Does, 1903, 407–409.—Fenger, 1854, 173.—Gerlach, 1854, 289–292 (liver fluke).—Grassi, (1884b); 1885a, 229–234.—Hilgen-dorf, 1885a, 127–130.—Hurtrel D'Arboval, 1838, 255 (cachexie); 1874a, 224–230, figs. 95–98.—Hurizard & Tessier, 1817a, 14 pp. (bovine).—Jamieson, 1897b, 147–148.—Le Roy de Mericourt, 1870a, 391–400.—Luciano, (1846a).—Mégnin, 1884, 52–55 (ruminants).—Montel, 1906, 258–262 (pulmonary).—Moulé, 1885, 501.—Perroncito, (1874), 35–36, 1 pl.; (1885), v. 28, 83–86.—Rail, 1896, 159.—Raynaud, 1859, v. 33, 488 (ruminants).—Reynal, 1856.—Schell, 1855–56.—Semmer, 1885, 438.—Signal, 1884, 33–34, figs. 16–18.—Velzen, 1891, Jul., 141.—Veterinarian, 1836, v. 9, 227–228; 1880, Aug., 548–549.—Zuendel, 1874, 224–230, figs. 95–98; ?1880, 30.
- , *hepatic*: Anacker, 1885d, 380–382.—Deutsche tierärztl. Wchnschr., Hannover, 1904, Jun. 4, 226.—Gómez, 1879a, Mar. 1, 81–89.—Matsumoto, 1891, 9–12.
- , *diagnosis of*: Cobb, 1904, 658–669 (eggs as quantitative aid); —, v. 8, 481.—Manson, 1901, 543.—Solowjew, 1904, v. 11 (7), 218; 1906, v. 10, 37.
- , —, *hepatic*: Brusaferro, 1887c, 296–304.—Garcia, 1884a, 129–135.
- , *etiology of*: Albanese, 1906, v. 55 (25), 597–602 (toxicity of aqueous extract).—Am. Vet. Rev., 1898, xxii, 82 (Hawaiian Islands).—Mégnin, 1881, 105–108 (ruminants); 1881, 182–183.—Reynes, 1869, 30–36 (hepatic).—Schaper, 1890, 17–18; 1890, 1–95, pls. 1–5; 1889, 96 pp., 5 pls. (and pathology; in domesticated animals).—Staiger, 1876.—Veterinarian, 1879, v. 52, Nov., 807–808 (rainfall).
- , *geographic distribution of*: Akanuma, 1892, 22–27 (hepatic, Saitama district); 1894, 6 (Province of Toyama).—Corlette, 1897a, 146–147 (Sydney).—Gaide, 1905, 568–579 (hepatic, Tonkin).—Kermorgant, 1905, Feb. 7, 104 (Tonkin); 1905, Feb. 8, 88; 1905, Apr. 11, 731; 1905, May 20, 463–464; 1906, Jan. 31, 64 (Tonkin).—Monsarrat, 1898a, 82 (Hawaiian Islands).
- , *in various animals*: Bolotoff, 1890a, 695–696 (domesticated).—Delafond, 1854a, 56 pp., figs. 12–13.—Didry, 1832a, 139–147.—Léger, 1897h, 957–958 (des pélicypodes).—Mangin, 1832, 420.—Sauer, 1898, Nov. 8, 421.

DISTOMATOSIS—Continued.

- , IN CATTLE: Aragon, 1896, 451–456, figs. 1a–3a (hepatic).—Bilhuber, (1791a), (and sheep).—Blakeway, 1879a, 260.—Buuck, 1865a, 33–35.—Collyer, 1893a, 347.—Cornil & Petit, 1901a, 178–179; 1901b, 614; 1901c, 375; 1902a, 114–115; 1902b, 117; 1902c, 57–58 (atrophic cirrhosis).—Curtice, (1891b), Jan. 24.—Jægger, 1906, v. 32 (4–5), 456–476, 2 fig. (hepatic); 1906, Aug., 382.—Lucet, 1890b, 548–549 (lungs); 1890c, 549–550 (rate).—Pease, 1895, May, 326–328; —, 5–8 (and buffaloes; India); —, 590–594.—Repiquet, 1899, May 31, 271–272, figs. 2–3; 1899, Nov., 816 (abdominal wall).—Veterinarian, 1880, Feb., 115–116; 1881, May, 317–318.—Watson, 1902, Mar., 145–151 (Connaught).
- , *pulmonary in cattle*: Mackh, 1889, 308–309.—Meltzer, 1894, n. 48; 1895, 137.—Morot, 1887, 38–39; 1887, 64–69; 1890, 407–409.—Rail., 1885, Aug., 285–286 (Dist. hep.).—Rivolta, (1868), 9; (1868), 267; (1868), 296–300; 1869, 473; 1869, 73–75.—Tapken, 1891, 241.
- , *bronchial in cattle*: Morot, 1893, 141–144; 1893, 249.
- , *heart, cattle*: Covu, 1898a; 1898, 98.—Muscle, cattle: Willach, 1892, 239.
- , IN DOG (*Canis fam.*): de Jong, 1896a, 1–12, pl. 1, figs. 1–4 (hepatic) (and cat); 1897a, 245–246; —, 479 (and cat; hepatic).—Kurimoto, 1894a, 45–49.—Zwaardemaker, 1888, Oct. 15, 679; 1890, Feb., 134–140 (and cat); 1890, May, 197–203, figs. 1–2; 1890, Aug., 276–277; 1890, 139–140.
- , IN DEER: Bassi, 1875; 1876, 235.
- , IN HORSE: Adams, 1876, Nov., 764–765 (hepatic).—Galli-Valerio, 1893a, 173–182; 1895c, 266 (gall duct); 1895e, 558.—Willach, 1892, v. 18, 118 (lungs).
- , IN MAN: Cobbold, 1884g, 976;—Florance, 1866a, 36 pp.—Grall, 1887a, 459–470, 4 figs.
- , —, *hepatic* (see also fascioliasis): Allen, 1881b, 257.—Caracoe, 1888a, 44 pp., 4 figs. (Asia).—Cobbold, 1875i, 423; 1875k, 780–781.
- , —, *hepatic, Japan* (see also opisthorchiasis): Akanuma, 1892, 22–27.—Aoyama, 1891a, Apr. 5.—Hori, 1890a, Feb. 5.—Inoue, Oaknishi & Katsurada, 1891a.—Kajama & Nanba, 1892a, 32–36.—Katsurada, 1890a, 38–41 (cirrhosis); 1891a, 20–32, 2 figs., 26–41, 2 figs. (Okajamaken); 1892a, 9–32, 28–32, 31–40, 27–32, 27–33, 18–21 (pathology); 1893a, 73–79; 1897a, 11–19, 3 figs. (pathology); 1899c, 38–45, 1–16 (pathology); 1900a, 1–9, 1–10, 1–5 (pathology).—Kurimoto, 1893a, 1–7, 21–24, 35–24, 35–39, 1 pl. (Provinz Saga); 1893b, 67–69, 85–87, 109–111.—Nochezuki & Tsutsumi, 1899a, 13–24.—Otani, 1892, 1–17 (Nagasaki district).—Winoue, 1892, Jun. 20, art. 2.
- , —, *intestinal*: Ghose, 1869a, 210–211.
- , —, *pulmonary* (see also paragonimiasis: [Gouveá, 1895a, 46 pp.; 1897a, 308–309, Fasc.]
- , —, *venal* (see also bilharziosis): Duval, 1842a, 769–772; 1842, 9.
- , —, *subcutaneous*: Malherbe, 1898, Jan. 22, 49–50, figs. 4–11; 1898, Mar. 12, 476; 1898, Dec. 24, 1289.
- , IN RABBIT (*Lepus*): Rail., 1887, Jul., 324–325.
- , IN SHEEP [nearly all articles on distomatosis in sheep refer to fascioliasis, q. v.] [liver rot, rot, etc.]: Agric. J., Cape Town, 1894, v. 7, 232–233.—Agric. J., Cape Town, 1891, v. 4, 161; 1892, Jan. 14, 160.—Alexander, 1906, Feb. 16, 3–4.—Am. J. Micr., 1880, Jun., 135.—Bass, 1893a.—Bidloo, (1697a).—Boissou, 1878a, 183–189 (Peyrat-le-Château).—Brown, 1861a, 347–379; 1861b, 617–619; 1881a, 326–337; 1886b, 613–615.—Bruce, 1895a, 486–490.—Cobb, 1897a, 453–481, figs. 1–18, 1 pl.; 1897b.—Cobbold, 1880c, 257–258; (1880d), Apr. 7.—Dickens, 1830a, 645–647.—Edin. Vet. Rev., 1863.—Exper. Station Rec., Wash., 1903, Nov., 304.—Fonssagrives, 1868a, 299–315, figs. 1–2.—Halse, 1887a; 1888a, 147–149.—Hamilton, 1880a, 290.—Hamont, 1834a, 537–546, 587–592 (Egypt).—Harrison (1804a).—Hedwig & Reutter (1790a); (1790b), 342.—Hering, 1852a, 117–128.—Hofnagel & Reeser, 1905, Jun.; 1906, Jan. 1, 50.—Hogo, 1903a, 603.—Hutcheon, 1903n, 603–604; 1905, Jan., 33–48.—Jones, 1894a, 274 (Australia).—J. Comp. M. & S., 1880, Jul., 173.—Joy, 1846a, 297–298.—Karkeek, 1831a, 573.—Kingdon, 1861, Apr., 224–225.—Leeuwenhoek, 1704, 1522–1527; 1705, 1522.—Lessona, (1846a).—Marshall & Hurst, 1887, 25–35.—Moodie, 1903, Jun., 726–727.—Nosotti, 1906, (5); 1906, Jun., 141.—Oekon. Nachr. d. Ges. in Schlesien, —, B. 1, 242.—Rail., 1890, 422.—Ratz, 1899, 616–618 (in spleen).—Rolleston, 1880, Apr. 14.—Rowe, 1872, Sept. 7; 1873, Feb., 120–128 (in Australia).—Salvagnoli-Marchetti, 1856,

DISTOMATOSIS—Continued.

- 52-56; 1856, 76 pp.—Samml. v. Natur- u. Med.-Geschichten, Breslau, 1718a, 694.—Schaeffer, 1753; 1762.—Schiller, 1844, 285-288 (Hungary).—Sheldon, 1881, 107-109 (England).—Simonds, 1861, 274; 1862.—Steel, 1890, 135-172, figs. 29-48.—Stewart, 1900, Oct., 10 pp.—Veterinarian, 1836, v. 9, 539-540; 1863, v. 36, 100; 1863, Mar., 157; 1872, Aug., 542; 1873, Feb., 155-161; 1879, May, 359-360; 1880, Mar., 201-202; 1880, Feb., 136-137; 1880, Jun., 402-403 (Sussex); 1881, Mar., 178-179; 1881, Jan., 29-30; 1882, Nov., 362; 1883, Feb., 130-132.—Wells, 1883, Apr., 171.—Williams, 1895, Dec., 92-93 (Australia).—Zambelli, 1874.—Zuendel, 1880, Apr. 15, 326-336; 1880, 30 pp.
- , MISCELLANEOUS: Harz, 1881c, 1-15, pl. 1 (in *Astacus*).—Rail, 1887, Aug., 559-560 (pulmonary); 1887, 392.—Vallada, 1882, 35-39 (crayfish and crabs).—Zuendel, 1881, 459-465; 1881, Oct., 833-848, 1 pl., figs. 1-3; 1882, Mar., 196-202, figs. 1-3 (des *écrevisses*).
- , PATHOLOGY AND LOCATION OF: R. Bl., 1901b, 204-212, 218-219; 1901c, 581-589.—Bossuat, 1902, 161-206 (hepatic); 1902, 56 pp.; 1903, Jan. 17, 12; 1903, Feb. 28, 115-116; 1903, Aug. 14, 533-534; 1905, July, 76.—Bonvicini, (1881a), 133-134 (hepatic); 1882a, 114.—Colucci, 1882, 535-568.—Hamont & Fischer, (1834b), 129.—Inoue, 1897b, 1-5; 1898a, 8-32, 25-40, 16-40, 17-28 (Japan); (1899a), 20, 15, 1, 1, 1; 1900b, 1-23 (pulmonary); 1900c, 515, 664, 739.—Inoue & Katsurada, 1891a, 8-12, 1 pl. (hepatic).—Katsurada, 1892.—Macgregor, 1877.—Miura, 1889, 310-317, pl. 7, figs. 1-3.—Morot, 1889, 37 (cattle); 1890, 732-734.—Pastor, 1897; 1900, 617-618 (hepatic).—Perroncito, 1887, Mar. 3, 97-112.—Pilavios, 1894, 407 (lungs, cattle); 1894, 579; 1895, Apr., 133.—Sodero, 1889, Nov. 30, 484-490, figs. 1-2 (hepatic); 1892, 161.—Spengel, (1892), 146-147.—Taniguchi, 1904, 100-121; 1905, July 29, 508-509 (cerebral).—Toichiro, 1883, Feb. 23.—Yamagiwa, 1899; 1890 (cerebral, man).—Zacharias, 1892, Dec. 3, 752-753 (cysts).
- , mortality from: Veterinarian, Lond., 1836, Apr., 225-228; 1880, Apr., 246-247; 1880, Sept., 650-664.
- , symptoms of: Aitken, 1866, 42; 1872, 207.—Anders, 1903, 6 ed, 1245.—Inoue & Kodama, 1896a, 14-21.—le Ray, 1897a, 372-386.
- , prevention of: Agric. J., Cape Town, 1894, Sept. 20, 442.—Bennett, 1876a, 677-680.—Manson, 1901, 543.—Stiles, 1902, pp. 220-222, figs. 197-203; 1905dd, 220-222, figs. 119-128.—Tierarzt, Wetzlar, 1904, May, 99-100.—Veterinarian, 1837, Aug., v. 10, 442-444.
- , treatment of: Agric. J., Cape Town, 1898, Aug. 4, 138-139.—Anders, 1903, 6 ed., 1245.—Armatage, 1895, 445-454.—Bekker, 1893, Jan. 26, 23.—Fegliata, (1887a), 61-62.—Khouri, 1904, 80 (rhubarb).—Riomsai, 1883, Sept. 5 (pulmonary); 1884, Feb. 16.—Romagli, 1903, Feb. 25; 1903, May 31, 301 (salol, sheep); 1903, June, 245; 1903, July 1, 513-519; 1904, Jan. 1, 9; 1904, Apr., 89-90.—Tappemer, 1900, 97-105; 1900, Dec. 11, 1729-1731.—Universal Mag., 1838, (1748).—Vallada, 1857; 1859, Aug., 538-595.—Verhandl. ü. Arb. d. Oekon. Patriot. Soc. d. Fürstenth. Schweidnitz u. Janer, 1818, 323.—Veterinarian, 1838, Mar., 112 (salt); 1873, Oct., 698-699.
- DISTOMEA Mont. [not *Distomea* (Protozoa)]. See Braun, 1890a, 516.—Olss., 1893.—Stiles & Hass., 1898a, 87, 90. See also Leuck. (1856), f. name.
- DISTOMEA Leuck., 1863a, 527 (fam. name).—Brand., 1888a, 49; 1891c, 730.—Braun, 1883a, 38, 58; 1893a, 886.—Jackson, 1888, 644.—Schneidemuchl, 1896, 296.—Stiles & Hass., 1898a, 87, 90.—Tasch., 1879, 234.—Zuern, 1882, 113.
- DISTOMEA Mont., 1888a, 7, 8, 9, 11, 12, 14, 15, 16, 18, 22, 27, 31, 34, 35, 36, 37, 38, 41, 47, 48, 49, 51, 52, 53, 54, 56, 57, 60, 73, 84, 90, 92, 102, 104, 108.
- DISTOMIDA Manson, 1903, 3 ed., 606 (probably for *Distomidae*).
- DISTOMIDAE Cobbold, 1860a, 1-56 (synopsis of tribe); 1877f, 326; 1879b, 4.—Brand., 1890a, 576.—Braun, 1883a, 59; 1890a, 515, 538; 1893a, 886, 890, 895, 900, 907; 1895b, 136.—Caullery, 1902, 21-24 (ascidian).—Haswell, 1887a, 286.—Haymann, 1905, 81-100, 1 pl. (from chelonians); 1906, Mar., 178.—[Herdman, 1890, 617 (family of *Ascidiae* compositae)].—Hoyle, 1890, 539 (includes: *Dist.*, *Fasc.*, *Bilharzia*, *Echinost.*, *Amphist.*, *Gastrodiscus*, *Homalogaster*, *Gastrothylax*, *Eurycoelium*).—Jackson, 1888, 643, 646, 647, 648, 654 (key).—Jacoby, 1899c, 1-30, 2 pls.—Kholodk., 1898, 25.—Klein, v. 22, 59-80, 1 pl. (from *Rana*); 1906, Mar., 178.—Leuck., 1886d, 30, 90, 442.—Levin, 1881a, 67.—Looss, 1899b, 541, 542, 543, 659 (contains *Amphistominæ* Looss, *Fasciolinæ* Looss) [not *Distomidae*, ascidian, see Herdman, 1900, 82]; 1900d, 601-608

DISTOMIDÆ—Continued.

(genera, nomenclature); 1901, 191, 196; 1902b, 120; 1902m, 838; 1904i, 21–22.—Maclaren, 1904, 598, 605, 608, 610, 611, 612, 613.—Montgomery, 1906, Feb. 12, 16.—Mont., 1888a, 7, 15, 17, 18, 20, 24, 28, 30, 43, 52, 56, 60, 68, 90, 92, 104 (subf.); 1891, 449, 516; 1892, Oct. 7, 214 (fam. of Malacocotylea); 1893, 153, 154, 155; 1893, 229; 1894, June 2, 872–874; 1894, Nov. 1, 16–21.—Mueh., 1898, 21.—Nickerson, 1902, 610.—Schneidemuehl, 1896, 295, 296.—Stiles, 1905z, 14.—Stiles & Hass., 1898a, 87, 89, 90; 1900a, 558–611, 2 pls., 6 figs.—Stoss., 1898, 22.

DISTOMIDEA Ben., —.—Carus, 1863, 478.—Mont., 1888a, 84.

DISTOMIDÉS Bl., 1888a, 541, 542, 543 (includes Dist., Amphist., Bilharzia), French name.

DISTOMIDI Mont., 1892, Oct. 7, 191.

DISTOMIDÆ Montgomery, 1906, Feb. 12, 17 (for Distomidæ).

DISTOMII Duj. of E. Bl., 1847, 277 (includes: Distomidæ, Amphistomidæ, Holostomidæ).

DISTOMINÆ Mont., 1892, Oct. 7, 214 (subf.).—Braun, 1893a, 890.—Looss, 1899b, 541.—Mueh., 1898, 21.—Stiles, 1905z, 14.—Stiles & Hass., 1898a, 90.—Stoss., 1898, 22.

DISTOMINEA, see Stiles & Hass., 1898a, 87.

DISTOMOMUM Sons., 1894, 172 (for Distomum).

DISTOMOSE, see distomatosis, Rail., 1896, 159, name of disease.

DISTOMOPSIS Rafinesque, 1815, 151 (new name for Dist. Zed., hence type Fasc. hepatica).

DISTOMULUM Brand., 1892, Oct. 7, 510 (see Agamodist.).—Stiles & Hass., 1898a, 82, 87 (syn. of Agamodist. Stoss., 1892).—Stiles, 1902s, 29; 1904i, 12.

DISTOMUM Dies., 1850a, 141, for Distoma.

DISTOMUS Gærtner, 1774, tunicate.

mamillaris Gærtner in Pallas, 1774, 20, also index.

variolosus Gærtner in Pallas, 1774, 35, 40, pl. 4, fig. 7, tunicate.—Lamarck, 1816, v. 3, 101.

DISTOMUS Lænnec, 1812c, 9–12 (m. intersectus).

intersectus Lænnec, 1812c, 9–12.

DISTONUM Goto, 1891a, 181.—Laspeyres, 1904a, 5, 12 (for Distomum).

DOLICHODEMAS Looss, 1900, 603, 608, Dolichosomum Looss, 1899 (not Dolichosoma Steph., —, coleopt.; not Huxley, 1867, saur.) renamed, hence type *lorum* Duj., 1845; *τὸ δέμας*, body.

DOLICHOSOMUM Looss, 1899b, Dec., 652–653, 655 [not Dolichosoma Steph., —, coleop., not Dolichosoma Huxley, 1867, saur.] m. *lorum*; *δολιχός* long, *τὸ σῶμα* body; 1900, 603, 608 (renamed Dolichodemus).—Braun, 1900h, 13; 1901i, 56.—Luehe, 1900, 557.—Ofenheim, 1900, 183.

1899: Dolichost. Looss, 1899b, 551, 652, misprint.

lorum (Duj., 1845a) Looss, 1899b, 653.

DOLICHOSTOMUM Looss, 1899b, Dec., 551, 652, misprint for Dolichosomum.

DYSTOMA Bojanus, 1817b, pl. ix (for Distoma).

amphistomoides Bojanus, 1817b, 270–277, pl. 9, figs. 1–6 (in Castor fiber).

hepaticum (Linn., 1758) Most, 1836, v. 1, 581, see sub Distoma.

krohnii Kelliker, 1849d, 65 (in cephalopod), see sub Distoma.

ECHINATA (Echinostoma) Rud., 1809a, 415 [the term Echinata is probably not used in a nomenclatural sense].

ECHINELLA Ben. & Hesse, 1864, 93–94 (not Achar., 1803, poly.; not Swains., 1840, mollusk) (m. hirundinis).—Braun, 1890a, 408, 410, 446, 511, 516, 517, 523, 531, 532; 1893a, 890.—Gamb., 1896a, 73.—Mont., 1888a, 86, 88, 98; 1891, 111; 1903, 336 (subf. Udonellinæ).—Pratt, 1900a, 646, 649 (key), 655, fig. 13.

hirundinis Mont., 1888a, 10 (for hirundinis).

hirundinis Ben. & Hesse, 1864, 94, pl. 8, figs. 17–19 (in Trigla hirundo).—Braun, 1890a, 418, 532, 548, 550, 552.—Mont., 1888a, 10 (hirundinis).—Pratt, 1900a, 655, fig. 13, 657.—Tasch., 1878, 573 (to Udonella).

- ECHINOSTOMA^a Rud., 1809a, 37-38, 415 [tld. echinatum].—Baird, 1853a, 55.—Blainv., 1828a, 587-588.—R. Bl., 1891, 609.—Brand., 1892b, 506.—Braun, 1892a, 567, 568, 578, 584, 699, 708, 772, 815; 1893a, 821, 884, 885, 890, 909, 911; 1895b, 121, 138; 1900h, 3; 1901b, 29, 33, 34; 1901e, 315, 328; 1901, 562; 1902b, 26, 117.—Cobbold, 1858b, 162; 1860a, 32; 1864b, 32; 1879b, 461-462.—Dies., 1850a; 1855c; 1858e; 1859c.—Duj., 1845a, 423.—Fil., 1855b, 25; 1857c, 28.—Fuhrmann, 1904, 62.—(Goeze, 1782a).—Hoyle, 1890, 539.—Jackson, 1888, 643, 654.—Kowal., 1897c, 554-565, figs. 1-8 (in chickens and ducks); 1897d, 554-565, figs. 1-8; 1897e, 407-408; 1898e, 412; 1898h, 107.—Kamensky, 1900a, 3.—Leuck., 1863, 456.—Looss, 1894a, 172, 249, 251; 1896b, 120, 138, 142; 1899b, 527, 534, 535, 538, 542, 551, 571, 572, 573, 574-575, 576, 578, 579, 582, 625, 696; 1900d, 603; 1901b, 194, 199, 200, 201, 209; 1901e, 628, 655.—1902m, 455, 457, 781, 786, 804, 816, 817, 830.—Luehe, 1899k, 532; 1900u, 489; 1900aa, 563.—Mont., 1888a, 12, 14, 24, 92, 105; 1892, Oct. 7, 214 (gen. of Distominae); 1892, 704; 1893, 150, 152, 153, 154, 158, 161.—Moul., 1856a, 15.—Odhn., 1902, 20, 21, 38.—Pratt, 1902a, 888, 895.—Rail., 1900, 242.—Rud., 1809a, 37-38, 415; 1814a; 1819a.—Stiles, 1901, 197.—Stiles & Hass., 1894; 1898a, 87 (type echinatum), 88, 96.—Stoss., 1892, 4, 5, 28; 1898, 52; 1899, in 11-16.
- acanthocephalum* (Stoss., 1887) Stoss., 1898, 57 (in *Belone acus*; Trieste); 1899, 1, 6 (to Tergestia).
- acanthoides* (Rud., 1819) Cobbold, 1860a, 33.—Braun, 1901e, 315.—Duj., 1845a, 424 (in *Phoca vitulina*; Berlin).—Looss, 1899, 581.—Stoss., 1892, 29 (in *Ph. vit.*; Baltic); 1899, 14.
- africanum* Stiles, 1901k, 594 (*E. bursicola* Looss, renamed).
- anceps* (Mol., 1859) Stoss., 1892, 168 (in *Fulica atra*; Padova); 1899, 13.—Looss, 1899b, 581.
- annulatum* (Dies., 1850) Cobbold, 1860a, 36 (in *Gymnotus electricus*; Brazil).—Looss, 1899, 581.—Stoss., 1899, 14.
- apiculatum* (Rud., 1803) Cobbold, 1860a, 35.—Looss, 1899b, 581, 696.—Stoss., 1892, 173 (in *Strix flammea* L., Greifswald; *Syrnium aluco* L., Vienna); 1899, 14.
- armatum* Fuhrmann, 1904, 61-63, fig. 3 (in *Rostrhamus sociabilis*).
- asperum* (Wright, 1870) Stoss., 1892, 164 (in *Botaurus minor*; North America); 1899, 13.—Looss, 1899b, 581, 695, 696; 1902m, 817.—Odhn., 1902, 38.
- baculus* (Dies., 1850) Cobbold, 1860a, 36 (in *Mergus albellus*; 1860, 31.—Looss, 1899b, 581, 693.—Nicoll, 1906, 154.—Stoss., 1892, 163 (in *Mer. alb.*; Ratzeburg); 1899, 14.
- beleocephalum* (Linst., 1873) Stoss., 1892, 169 (in *Ardea cinerea* L.; Ratzeburg); 1899, 14.—Looss, 1899, 581, 687, 695.
- bicoronatum* (Stoss., 1883) Par., 1902, 5 (in *Corvina nigra*, *Umbrina cirrhosa*; Portoferrajo).
- bilobum* (Rud., 1819) Cobbold, 1860a, 35.—Looss, 1899, 572, 581, 684-685, 687, fig. 8; 1901b, 201, 209 (with *E. ramosum* probably represents a subg. of Echinost.).—Odhn., 1902, 38.—Stoss., 1892, 171-172 (in *Fulica atra*, *Plegadis falcinellus*; Padova and Vienna; *Platalea leucorodia*; Venice); 1899, 13.
- bursicola* Looss, 1899b, 694-696, figs. 19-20 (in *Milvus parasiticus* at Adeleninsel, Heluan, Apr.; *Falco tinnunculus* at Dachschur, Jan.).—Braun, 1901, 18; 1902b, 74.—Stiles, 1901s, 593-594 (renamed *africanum*); 1902cc, 360.
- cesticillus* (Mol., 1858) Mont., 1893, 158-161, pl. 5, figs. 56-60, pl. 6, fig. 68.—Barbagallo & Drago, 1903, 11 (in *Seriola dumerili*, *Torpedo ocellata*, *Umbrina cirrhosa*; Catania).—Looss, 1894a, 252 (Dist. *valdeinflatum* as syn.); 1899b, type of *Stephanost.*—Stoss., 1898, 54 (in *Zeus faber*, *Lophius piscatorius*, *Corvina nigra*, *Umbrina cirrhosa*; Trieste).
- cinctum* (Rud., 1803) Cobbold, 1860a, 35 (in *Vanellus cristatus*, V. *melanogaster*).—Looss, 1899b, 580, 683, 687.—MacCallum, 1904, 547.—Stoss., 1892, 172-173 (in *Vanellus cristatus*, V. *melanogaster*, *Gallinula chloropus*; Rosstock); 1896, 126; 1897, 10; 1898, 53; 1899, 12.
- cloacinum* Braun, 1901d, 259 (*D. bursicola* Crep., renamed) (in *Ardea cinerea*); 1902b, 74 (Dist. *bursicola* Crep., as syn.).—MacCallum, 1904, 547.—Stiles, 1901k, 593-594 (nomenclature); 1902cc, 360.

^a Rud. originally proposed Echinostoma as a genus, but in the same work he used it in such a way that we must also interpret it as a subgenus. For the original species see D. (Echinostoma).

ECHINOSTOMA—Continued.

- columba livia* Mueller, 1897, 26, pl. 3, fig. 7 (in *Columba livia*).
- conoideum* (Bloch, 1782) Kowal., 1896, 5; 1897c, 554–565; 1897e, 407–408; 1898h, 111; 1902d, 27 (in *Anas boschas* dom.; Dublany); 1904, 24 (in *Anas boschas* dom.; Dublany).—Galli-Valerio, 1898m, 923.—Looss, 1899b, 581.—Rail., 1898, 412.—Stoss., 1899, 13 (in *Anas boschas*).
- coronatum* (Rud., 1819) Stoss., 1892, 30–31 (in *Didelphys virginiana*; Brazil); 1892, 37; 1899, 14.—Braun, 1901e, 319, 320 (to *Rhopalias*).—Looss, 1899b, 581.
- coronatum* (Wagener, 1852) Stoss., 1898, 56–57 (in *Corvina nigra*; Triest).—Type of *Anoiktost*. 1899.
- cristatum* (Rud., 1819) Cobbold, 1860a, 37 (in *Stromateus fiatola*).
- croaticum* (Stoss., 1889) Stoss., 1892, 165–166 (in *Carbo graculus*; Fiume); 1899, 12.—Looss, 1899b, 580.—Par., 1902, 1, 4 (in *Phalacrocorax graculus*; Caproja).
- crocodili* (Poir., 1886) Stoss., 1895, 227–228 (in *Crocodilus siamense*); 1899, 12.—Looss, 1899b, 575, 580.—Odh., 1902, 20.
- denticulatum* (Rud., 1802) Cobbold, 1860a, 36.—Looss, 1899, 581.—Stoss., 1892, 170–171 (in *Sterna cantiaica*, Vienna; *S. hirundo*, Greifswald; *Hydrochelidon nigra*, *Anas sponsa*); 1899, 14.
- dilatatum* (Fischer, 1840) Cobbold, 1860a, 35 (in *Phasianus gallus*).—Hass., 1896a, 3 (syn. of *Echinost. echinatum* (Zed.)).—MacCallum, 1904, 547.—Stoss., 1892, 167.
- dujardini* MacCallum, 1904, 547, for *dujardinii*.
- dujardinii* Cobbold, 1860a, 37 (in *Pleuronectes maximus*, *P. platessa*); see *Dist. hystrix* Duj.
- echinatum* (Zed., 1803) Blainv., 1828a, 588.—Baird, 1853a, 55.—Braun, 1906, 142 (in ducks and geese).—Cobbold, 1860a, 33.—Galli-Valerio, 1898m, 923.—Hass., 1896a, 3 (syns., *D. ech.*, *D. oxycephalum*, *D. dilatatum*, *D. armatum*, *Echinost. dilatatum*) (in *Gallus* dom.).—Kowal., 1894, 221; 1896, 257 (in *Corvus cornix*, *Anas crecca*); 1898g, 70; 1898h, 111, 113, 115, 116, 117, fig. 27; 1902d, 27 (in *Anas boschas* dom.; Dublany); 1904, 24 (in *Anas boschas* dom.; *Gallus* dom.; Dublany).—Linst., 1893, 333 (larva in *Bythinia ventricosa*, *Physa fontinalis*, *Valvata macrostoma*, *Limnæa palustris*).—Looss, 1899b, 575, 580, 679–684, 687, 693, figs. 5, 7, 10; 1901b, 201, 209; 1902m, 823.—Luehe, 1898, 625; 1901, 175.—MacCallum, 1904, 547, 548.—Mueh., 1898, 21; 1898, 71 (in *Ædemia fusca*, *Colymbus arcticus*, *Ciconia alba*, *Buteo vulgaris*).—Nicoll, 1906, 154.—Nord., 1840, 621 (syn. of *Fasc. trigonocephala*).—Rail., 1898, 412.—Sons., 1897, 252.—Stiles & Hass., 1898a, 88.—Stoss., 1892, 167 (syns. *Dist. anatis fuscae*, *D. armatum*, *D. dilatatum*, *D. ech.*, *D. fuligulæ ferinae*, *D. oxycephalum*, *D. radiatum*, *Ech. dilatatum*, *Fasc. anatis*); 1896, 127; 1898, 52; 1899, 12.—Wolffhuegel, 1900, 9, 57, 58, 59, 60, 61.—Reported for *Anas anser*, *A. boschas*, *A. clangula*, *A. cybeata*, *A. cygnus*, *A. ferina*, *A. fuligula*, *A. marila*, *A. moschata*, *A. nyroca*, *A. olor*, *A. penelope*, *A. strepera*, *A. tadorna*, *Anser albifrons*, *Archibuteo vulgaris*, *Ardea comata*, *A. gardeni*, *A. grus*, *A. nycticorax*, *A. pavonia*, *Balearica pavonia*, *Bucephala clangula*, *Carbo cormoranus*, *C. pygmaeus*, *Canis familiaris*, *Chaulelasmus streperus*, *Ciconia alba*, *C. nigra*, *Colymbus arcticus*, *Coracias garrula*, *Fuligula cristata*, *Grus cinerea*, *Machetes pugnax*, *Mareca penelope*, *Pernis apivorus*, *Podiceps cristatus*, *P. minor*. Larva in: *Limnæus stagnalis*, *Paludina vivipara*, *P. achatina*, *Planorbis corneus*.
- echiniferum* (La Valette, 1855) Stoss., 1892, 171 (in *Scolopax gallinago*, *Mergus merganser*, *Anas boschas*, *Podiceps minor*); 1899, 14.—Looss., 1899, 581.—Wolffhuegel, 1900, 9, 56.
- echinocephalum* (Rud., 1819) Cobbold, 1860a, 34–35 (in *Falco milvus*).—Looss, 1899b, 581, 687, 696.—Stoss., 1892, 173–174 (in *Milvus regalis*); 1899, 14.
- elegans* Looss, 1899b, 692–693, fig. 18 (in *Phenicopterus roseus*; Ghizeh).
- euryporum* Looss, 1896b, 144–146, pl. 9, fig. 93 (in *Milvus parasiticus*; Cairo; also in *Ardea cinerea*); 1899b, 580, 686–687, 690, 696, fig. 16, 17.—Fuhrmann, 1904, 62.—Stoss., 1899, 12.
- fallax* (Rud., 1819) Cobbold, 1860a, 37.—Looss, 1902m, 823.—Stoss., 1898, 56 (in *Uranoscopus scaber*; Triest).
- ferox* (Rud., 1795) Blainv., 1828a, 588.—Cobbold, 1860a, 35.—Kowal., 1902d, 28.—Looss, 1899, 581, 687; 1902m, 817.—Luehe, 1905, 176.—Mueh., 1898,

ECHINOSTOMA—Continued.

- 21, 23, 102–105, fig. 14.—Nord., 1840, 622 (as syn. of *Fasc. trigonocephala*).—Odhn., 1902, 38 (represents a new [unnamed] genus).—Stiles & Hass., 1898a, 88.—Stoss., 1892, 164–165 (in *Botaurus stellaris*, *Ciconia alba*, *C. nigra*; Padova, Vienna, Greifswald, Rennes); 1899, 13.
- flexum* (Lint., 1892) Stoss., 1899, 13 (in *Edemia americana*).—Looss, 1899b, 581.
- fralichii* (Kowal., 1894) Kowal., 1894, 222; 1898h, 111, syn. of *E. conoideum* (Bloch).—Stoss., 1899, 13 (in *Anas boschas*).
- gadorum* Ben., 1870, 60 (in *Merlangus carbonarius*; Belgian coast).—Hoyle, 1890, 539.—MacCallum, 1904a, 547.
- garzettæ* MacCallum, 1904a, 541–548, 1 fig. (in *Garzetta nigripes* Temm.; Benakat); 1904, Oct., 532.
- hispida* of Ben., 1870, pl. 4, fig. 13.—Odhn., 1902, 157 (syn. of *Deropristis inflata*).
- hispidum* (Abildg., 1819) Cobbold, 1858b, 171, figs. 47–50; 1879b, 462, fig. 77 (in sturgeon).—Ben., 1870, 23, pl. 4, figs. 12–13.—Mont., 1893, 83.—Odhn., 1902, 155, 156, 159 (type of *Deropristis*), 157 (fig. 13 of Ben., 1870=*D. inflata*).—Stoss., 1898, 57–58 (in *Acipenser sturio*; Triest); 1899, 14.
- imbutiforme* (Mol., 1859) Stoss., 1898, 55–56 (in *Labrax lupus*; Triest).
- incrassatum* (Dies., 1850) Cobbold, 1860a, 33 (in *Lutra solitaria*; Brazil).—Braun, 1901e, 317, 328, pl. 19, figs. 5, 8, 9.—Fuhrmann, 1904, 64.—Looss, 1899, 581.—Stoss., 1892, 30 (in *Lutra solitaria*; Brazil); 1899, 14.
- inermis* Fuhrmann, 1904, 63–64, fig. 4 (in *Lutra*).
- inflatum* (Mol., 1859) Stoss., 1898, 58 (in *Anguilla vulgaris*; Triest).
- labracis* (Duj., 1845) Ben., 1870, 45.—MacCallum, 1904a, 547.
- laticolle* (Rud., 1819) Par., 1899, 5 (in *Trachurus trachurus*; Rimini, Naples); 1902, 4 (in *Corvina nigra*; *Seriola dumerili*; Elba).—To Tergestia in 1899.
- leptosomum* (Crep., 1829) Cobbold, 1860a, 35 (in *Tringa variabilis*, *Chalidris arenaria*).—Looss, 1899b, 580.—Nicoll, 1906, 517.—Stoss., 1892, 169; 1899, 12.
- lidæ* Par., 1902, 6, for *lydiæ* (in *Orthogoriscus mola*; Tonnara d'Enfola).
- liliputanum* Looss, 1896b, 141–143, pl. 9, figs. 91–92 (in *Pernis apivorus* at Alexandria, Egypt; *Milvus parasiticus* at Matarijeh); 1899b, 575, 580, 696; 1901b, 200, 201, 202, 209; 1902m, 816, 817 (form from cat represents a new genus), 818.—Stoss., 1899, 12.
- lydiæ* Stoss., 1896, 190–191, pl. 8, fig. 1 (in *Orthogoriscus mola*; Triest); 1898, 55.—Barbagallo & Drago, 1903, 411 (in *O. m.*; Catania).—Looss, 1901e, 605, type of *Dihemistephanus*.—Par., 1902, 6 (*lidæ*) (in *O. m.*; Tonnara d'Enfola).
- magnioratum* Stoss., 1898, 53–54 (in *Puffinus kuhlii*; Triest); 1899, 13.—Looss, 1899b, 581; 1901b, 209; 1901e, 596.
- militare* (Rud., 1803) Cobbold, 1860a, 34; 1879b, 436, 437.—Kowal., 1902d, 28.—Looss, 1899b, 581.—Stoss., 1892, 163–164 (in *Numenius arquatus*, *Scolopax gallinula*, *S. gallinago*, *Ortygometra porzana*); 1899, 13.—Also reported for *Limnocryptes gallinula*.
- mordax* Looss, 1899b, 688, 690, fig. 9 (in *Pelecanus onocrotalus*; Egypt).—Kowal., 1904, 19 (in *Podiceps auritus*; Dublany).
- nepbrocephalum* (Dies., 1850) Cobbold, 1860a, 36 (in *Turdus saxatilis*).—Looss, 1899b, 581.—Stoss., 1892, 174; 1899, 14 (in *T. sax.*).
- nigroflavum* (Rud., 1819) Barbagallo & Drago, 1903, 410 (in *Orthogoriscus mola*; Catania).
- oxycephalum* (Rud., 1819) Rail., 1896, 160.
- pendulum* Looss, 1899b, 580, 688–692, 693, figs. 13, 15b, c (in *Recurvirostra avocetta*; Adeleninsel, Egypt, Feb.).—Fuhrmann, 1904, 62.
- perlutum* (Rud., [=Nord., 1832]) Barbagallo & Drago, 1903, 410–411 (in *Tinca vulgaris*; Catania).
- phœnicopteri* Luehe, 1898g, 625 (in *Flamingo*; *Berberei*); 1899e, 235.—Looss, 1899b, 580, 693 (in *Phœnicopterus ruber*).—Stoss., 1899, 12 (*Barbary*).
- pristis* (Deslongchamps, 1824) Cobbold, 1860a, 36 (in *Merlangus communis*).—Looss, 1899, to *Stephanost*.—Stoss., 1898, 54–55 (in *Gadus euxinus*; Triest).
- pseudoechinatum* (Olss., 1876) Stoss., 1892, 166 (in *Larus marinus*; Scandinavia); 1899, 13.—Kowal., 1902d, 27.—Looss, 1899b, 581, 685–686, 690, 691, 692, figs. 11, 12, 15.—Mueh., 1898, 21–22.—Also reported for *Larus fuscus*.

ECHINOSTOMA—Continued.

- pungens* (Linst., 1893) Stoss., 1899, 14 (in *Podiceps minor*).—Looss, 1899b, 581.—MacCallum, 1904a, 547.
- ramosus* Sons., 1895, 123–124 (in *Babulcus ibis*; Nile Delta).—Looss, 1899, 581; 1901, 201.—MacCallum, 1904a, 547.—Odh., 1902, 38.
- recurvatum* (Linst., 1873) Stoss., 1892, 162–163 (in *Fulix marila*; Ratzeburg); 1899, 12.—Looss, 1899b, 580, 693.—Kowal., 1894, 220; 1902d, 27; 1904, 24 (in *Anas boschas dom.*, *Gallus dom.*; *Dublany*).—MacCallum, 1904a, 547.—Rail., 1898, 412.—Also in *Fuligula marila*.
- revolutum* (Froelich, 1802) Looss, 1899, 680.
- scabrum* (Mueller, 1788) Cobbold, 1860a, 37 (in *Lota molva*, *Gadus morrhua*).
- secundum* Nicoll, 1906, 514, 515–518, pl. 12, figs. 1–3 (in *Hæmatopus ostralegus*, *Larus argentatus*, *L. ridibundus*).
- serratum* (Dies., 1850) Cobbold, 1860a, 35 (in *Anas scolopaceus*; Brazil).—Looss, 1899b, 581.—Stoss., 1892, 171; 1899, 14.
- spathulatum* (Rud., 1819) Kowal., 1898g, 69–71, 76, figs. 1–14, 37 (in *Botaurus minutus* by Bremser); 1898h, 106–121, 158, figs. 1–14, 37 (in *Botaurus minutus*; *Dublany*) (*spatulatum*).—Looss, 1899b, 575, 581.—Stoss., 1899, 13.
- spatulatum* (Rud., 1819) Kowal., 1898h, 106–121, 158. See also *spatulatum*.
- spiculator* (Duj., 1845) Cobbold, 1860a, 33.—Looss, 1899b, 581.—Stoss., 1892, 28 (in *Mus decumanus*; Hameln, Rennes); 1899, 13.
- spinulosum* (Rud., 1809) Cobbold, 1858b, 165, pl. 33, figs. 68–72 (in *Larus glaucus*); 1860a, 36 (in *Colymbus septentrionalis*, *Podiceps cristatus*, *Anas querquedula*, *Uria grylle*, *Carbo graculus*, *Larus argentatus*, *L. capistranus*, *L. glaucus*, *L. ridibundus*, *Anas clangula*, *Numenius arcuatus*); 1879b, 448.—Cohn, 1903, 41 (in *Alca torda*).—Condorelli, 1897, in 118–124 (in *Hydrocolæus minutus*).—Gilbert, 1905, v. 39, 925–927, 1 fig.—Looss, 1896b, 141; 1899b, 580, 687, 689, 690, 691.—Mueh., 1898, 22.—Nicoll, 1906, 154; 1906, 516, 517.—Par., 1899, 5; 1902, 4 (in *Fulica atra*; Elba).—Stoss., 1892, 169–170 (in *Querquedula circia*, *Phalacrocorax graculus*, *Larus argentatus*, *L. capistranus*, *Uria grylle*, *Totanus fuscus*, *Numenius arquatus*); 1896, 127 (in *Numenius tenuirostris*; Monfalcone); 1898, 52–53 (in *Larus ridibundus*, *Numenius tenuirostris*, *Podiceps cristatus*; Trieste); 1899, 12.—Wolffhugel, 1900, 9, 56 (in *Machetes pugnax*). 62.—Also reported for *Bucephala clangula*, *Chrocephalus minutus*, *Fulica atra*, *Larus fuscus*.
- tabulatum* Mueller, 1897, 21–22, pl. 3, fig. 5 (in *Numenius arquatus*).—MacCallum, 1904a, 547.
- trigonocephalum* (Rud., 1802) Cobbold, 1860a, 33.—Kowal., 1902d, 27; 1904, 25 (in *Putorius foetidus*; *Dublany*).—Looss, 1899b, 581; 1902m, 823.—Mueh., 1898, 22.—Stoss., 1892, 29–30 (syns. *Fasc. putorii*, *F. trig.*, *Dist. trig.*) (in *Erinaceus europæus* at Padova, Vienna; *Meles taxus* at Warnemünde; *Mustela foina*; *Lutra vulgaris*; *Putorius lutreola*; *P. communis* at Padova, Vienna; *Putorius vulgaris* at Venezia, Greifswald; *Vulpes vulgaris*); 1899, 13.
- umbonatum* Odh., 1902, 21–22 (in *Krokodil*; Nile).
- uncinatum* (Zed., 1803) Cobbold, 1860a, 35 (in *Gallinula chloropus*).—MacCallum, 1904a, 547.—Stoss., 1892, 172 (= *E. cinctum*) (in *Vanellus cristatus*, *V. melanogaster*, *Gallinula chlor.*; Rostock).
- (ECHINOSTOMA) Rud., 1809a, 37–38, 415–429 (tld. *echinatum*); a. subg. of *Dist.* See also *Echinost.*
- acanthoides* Rud., 1819a, 114, 415–416 (in *Phoca vitulina*; Berlin). See *Echinostoma*.
- annulatum* (Dies., 1850) Stoss., 1886, 63. See *Echinost.*
- apiculatum* (Rud., 1803) Rud., 1809a, 423. See *Echinost.*
- areolatum* (Rud., 1809) Stoss., 1886, 60.
- bicoronatum* (Stoss., 1883) Stoss., 1886, 58.
- bilobum* Rud., 1819a, 114, 416 (in *Tantalus falcinellus*). See *Echinost.*
- campanula* (Duj., 1845) Stoss., 1886, 62.
- cesticillus* (Mol., 1858) Stoss., 1886, 57. See *Echinost.*
- cinctum* (Rud., 1803) Rud., 1809a, 422–423. See *Echinost.*
- contortum* Rud., 1819a, 118 (in *Orthogoriscus mola*; Naples).

(ECHINOSTOMA)—Continued.

- coronarium* (Cobbold, 1861) — ? —, 1896.
coronatum Rud., 1819a, 686 (in *Didelphis virginiana*). See Echinost.
coronatum (Wagener, 1852) Stoss., 1886, 58. See Echinost.
corvinæ (Stoss., 1886) Stoss., 1886, 58.
cristatum Rud., 1819a, 117 (in *Stromteus fiatola*; Arimini). See Echinost.
denticulatum (Rud., 1802) Rud., 1809a, 424–425. See Echinost.
echinatum (Zed., 1803) Rud., 1809a, 418–420. See Echinost.
echinocephalum Rud., 1819a, 115 (includes *D. milvi*) (in *Falco milvus*). See Echinost.
ellipticum Stoss., 1886, 64, for *ellipticum* (Mol., 1858).
exasperatum Rud., 1819a, 117 (in *Sorex eremita*).
fallax Rud., 1819a, 117 (in *Uranoscopus scaber*; Naples). See Echinost.
ferox (Rud., 1795) Rud., 1809a, 426–427. See Echinost.
hemicyclum (Mol., 1859) Stoss., 1886, 60.
hispidum (Abildg., 1819) Rud., 1819a, 118, in *Accipenser sturio*; Arimini, Berlin; includes *D. sturionis*. See Echinost.
hystrix Duj., 1845a, 433 (in *Pleuronectes maximus*, *P. platessa*).
imbutiforme (Mol., 1859) Stoss., 1886, 59. See Echinost.
incrassatum (Dies., 1850) Stoss., 1892, 30. See Echinost.
increscens (Olss., 1868) Stoss., 1886, 58.
inflatum (Mol., 1859) Stoss., 1886, 63. See Echinost.
labracis (Duj., 1845) Ben., 1870, 1871a, 24 (in *Labrax lupus*; Belgium). See Echinost.
laticolle Rud., 1819a, 117 (in *Caranx trachurus*; Naples and Arimini). See Echinost.
leptosomum (Crep., 1829) Duj., 1845a, 428. See Echinost.
lima Rud., 1809a, 427–429.
militare (Rud., 1803) Rud., 1809a, 421–422. See Echinost.
mulli (Stoss., 1883) Stoss., 1886, 59.
nigroflavum Rud., 1819a, 118 (in *Orthogoriscus mola*; Naples).
oculatum (Levin., 1881) Stoss., 1886, 58.
perlatum (Nord., 1832) Stoss., 1886, 62. [Type of *Asymphylogdora*.]
planicolle Rud., 1819a, 686 (in *Pelecanus sula*; Brazil).
polonii (Mol., 1859) Stoss., 1886, 58.
pristis (Deslongchamps, 1824) Duj., 1845a, 433. See Echinost.
rachion (Cobbold, 1858) Stoss., 1886, 61.
radiatum Duj., 1845a, 385, 427–428 (in *Carbo cormoranus* or *Pelecanus carbo*).
radula Duj., 1845a, 433–434 (in *Lymnæus palustris*; Rennes).
scabrum (Mueller, 1784) Rud., 1819a, 118. See Echinost.
semiarmatum (Mol., 1858) Stoss., 1886, 64.
sobrinum (Levin., 1881) Stoss., 1886, 58.
sophiæ (Stoss., 1886) Stoss., 1886, 59.
spathulatum (Rud. [Crep., 1837]) Par., 1902, 4 (in *Ardetta minuta*; Portoferraio).
spiculator Duj., 1845a, 424–425 (in *Mus decumanus*; Rennes). See Echinost.
spinulosum Rud., 1809a, 425 (in *Larus naevius*, *L. cinerarius* and *Colymbus septentrionalis*). See Echinost.
trigonocephalum (Rud., 1802) Rud., 1809a, 415–418. See Echinost.
uncinatum (Zed., 1803) Rud., 1809a, 420–421. See Echinost.
valideinflatum (Stoss., 1883) Stoss., 1886, 58.
viviparum (Olss., 1868) Stoss., 1886, 60.

ECHINOSTOMIDÆ Looss, 1902m, 817.

ECHINOSTOMINÆ Looss, 1899b, 543, 579; 1902, 839.—Braun, 1901.—Nicoll, 1907, 80.—Pratt, 1902a, 888 (includes: Echinost., Stephanochasmus, Dihemistephanus, Stephanoprora; related genus Rhopalias), 895 (key).

ECHINOSTOMUM. See Echinostoma.

EMISTOMUM Sons., 1889, 192, apparently for Hemistomum.

alatum (Goeze, 1782) Sons., 1889, 192.

EMOLEPTALEA Looss, 1900d, 602, Leptalea Looss, 1899 [nec Klug, 1839] renamed, hence type exilis.—Pratt, 1902a, 889, 901 (key).

ENCHELYS Mueller, 1786.—Nitzsch, 1827, 68 (contains *Cerc. podura*, *C. viridis*).—[Not Enchelys for Echelus Raf., 1810, fish.]

ENCOTYLLABIDÆ Mont., 1888, 108 (for Encotyllabidæ).

ENCOTYLLABE Gamb., 1896a, 73 (for Encotyllabe).

ENCOTYLLABE Dies., 1850a, 290, 427–428 (m. nordmanni); 1858e, 313, 364.—Ben. & Hesse, 1864, 66, 79–81.—Braun, 1890a, 412, 415, 469, 477, 498, 511, 515, 516, 519, 523, 525, 526, 529; 1893a, 889.—Carus, 1863, 477.—Gamb., 1896a, 73 (Encotyllabe).—Goldb., 1855a, 20.—Massa, 1906, 43, 48.—Mont., 1888a, 7, 10, 13, 16, 66 (Encotyllabe), 86, 87, 97; 1891, 122; 1892, Oct. 7, 213 (gen. of Encotyllabinæ); 1899, 98, 99; 1903, 335 (subf. Encotyllabinæ; fam. Tristomidæ).—Pratt, 1900, 646, 649 (key), 655, fig. 11.—Tasch., 1878, 566 (syn. of Trist. Cuv.).

1888: Encotyllabe Mont., 1888a, 66 (for Encotyllabe).

1896: Encotyllabe Gamb., 1896a, 73 (for Encotyllabe).

nordmanni Dies., 1850a, 428 (syn. Trist. excavatum Nord. MS.) (in *Brama mediterranea*); v. 14, 70, pl. 1, figs. 1–14; 1858e, 364 (in *Br. rayi*).—Braun, 1890a, 418, 530, 547, 550 (normanni).—Kroyer, 1838–40a, 595 (in *Br. rayi* Bl.).—Mont., 1891, 122.—Pratt, 1900, 655, 657, fig. 11.—Tasch., 1878, 564, 565, 568 (to Trist.).

normanni Braun, 1890a, 550 (for nordmanni).

pagelli Ben. & Hesse, 1864, 80–81, pl. 7, figs. 1–11 (in *Pagellus centrodonotus*).—Braun, 1890a, 411, 418, 419, 530, 547, 551.—Cunningham, 1887a, 278.—Gamb., 1896a, 58, fig. 25A.—Mont., 1888a, 7, 15, 66; 1891, 122.—Tasch., 1878, 569 (to Trist.).

species Par. & Perugia, 1890, 6 (in *Crenilabrus pavo*).—Braun, 1890a, 530, 547, 550.

ENCOTYLLABIDÆ Mont., 1888, 87, 88, 97, 108 (Encotyllabidæ); 1891, 108, 122.—Braun, 1890a, 517.

ENCOTYLLABINÆ Mont., 1892, Oct. 7, 213 (subf. of Tristomidæ); 1903, 335 (fam. Tristomidæ).—Braun, 1893a; 889.—Pratt, 1900, 646 (Encotyllabe), 649 (key).

ENCOTYLLABE Mont., 1888, 166, misprint for Encotyllabe.

ENODIA Looss, 1899b, 592–593, 633, 710 (m. megachondrus); *ἐνόδιος*, am Wege; [not Enodia Huebn., 1816, lepidopteron; not Enodia Dahlb., 1843, hymenopteron; not Enodius, Lap., 1836, coleopteron]; 1900, 602 (renamed Enodiotrema Looss, 1900); 1902, 515.—Braun, 1901a, 23; 1901b, 23.—Stiles, 1901r, 189.

megachondrus Looss, 1899b, 593, 709–710, fig. 30, in *Testudo* (græca?); 1902, 508 (to Enodiotrema).—Braun, 1901a, 23, 24.—Luehe, 1900, 561.

ENODIOTREMA Looss, 1900, Dec. 3, 602, Enodia Looss, 1899 [nec Huebn., 1816], renamed, hence type megachondrus; 1901l, 562, 563; 1902m, 508, 512, 514, 515, 516, 584, 788, 824, 838.—Braun, 1901a, 23; 1901b, 26.—Cohn, 1902, 882.—Heymann, 1905, 93.—Odhn., 1902, 38, 40, 41, 42, 153.—Pratt, 1902a, 888 (related to Plagiorchiinæ), 900 (key).

acariæum Looss, 1902m, 415, 417, 517–519, pl. 24, figs. 50–54 (in *Thalassochelys corticata*; Egyptian coast), 873, pl. 24, figs. 50–54.

instar Looss, 1901l, 562, 563 (in *Thalassochelys corticata*); 1902m, 516–517, 873, pl. 24, figs. 45–46.—Braun, 1902b, 24, fig. 9.

megachondrum (Looss, 1899) Braun, 1901b, 23, 24, fig. 9 (for megachondrus) includes “Monost. cacouanæ Kollar,” in *Thalassochelys caouana* = *T. caretta*.

megachondrus (Looss, 1899) Looss, 1901l, 561–562, 563 (in *Chelone mydas*, *Thalassochelys corticata*; Egypt); 1902m, 414, 415, 417, 508–516, pl. 24, figs. 41–44, 517, 788, 872, pl. 24, figs. 41–44.—Odhn., 1902, 153.

reductum Looss, 1901l, 562–563 (in *Thalassochelys corticata*); 1902m, 517, 518, 519, 873, pl. 24, figs. 47–49.

ENTOBDELLA Audouin, 1828a, 455, “Il paraît que Blainv. a désigné ce genre sous le nom d’Entobdelle.”—Braun, 1890a, 518.—Johnston, 1865, 30, 32.

hippoglossi (Mueller, 1776) Johnston, 1856, 32 (syns. *Hirudo hip.* Mueller, *Phylline hip.* Lam., *Trist. hamatum*), on *Hippoglossus vulg.*

- EPIBATHRA Looss, 1902m, 576, 577, 581, 582, 584, 589, 594, 597, 600, 601, 602, 603, 609, 612, 614-615, diagnosis (m. crassa).
- crassa* (Looss, 1901) Looss, 1902m, 414, 416, 557, 575-578, 615, 876, pl. 26, figs. 83-88, 888, pl. 32, figs. 179-180.
- EPIBDELLA Blainv., 1828a, 567 (m. hippoglossi).—Ben., 1858a, 1861a, 11, 18-21, 61, 167, 168, 169, 170, 176, 190, 194.—Ben. & Hesse, 1864, 64, 66, 68-70.—Brandl., 1894a, 308.—Braun, 1890a, 412, 414, 415, 423, 429, 451, 453, 465, 466, 469, 473, 484, 490, 495, 511, 515, 516, 517, 518, 519, 522, 523, 526, 527; 1890e, 597; 1891d, 422; 1893a, 889.—Carus, 1863, 477.—Dies., 1850a, 426 (syn. Phylline Oken).—Fraip., 1880c, 416, 445; 1881b, 28.—Gamb., 1896a, 73.—Goto, 1893a, 798.—Haswell, 1892a, 458.—Jackson, 1888, 646 (excretory system), 647 (rep. syst.), 648.—Johnston, 1865a, 32.—Kroyer, 1843-45a, 404 (in *Hippoglossus maximus* Mind.).—Lint., 1901a, in 267-304, 11 pls.—Maclaren, 1904, 593.—Massa, 1906, 43, 48, 49.—Mont., 1888a, 10, 11, 13, 16, 19, 28, 35, 36, 42, 52 (Epihdella), 55, 57, 66, 84, 86, 87, 97; 1891, 100, 104, 105, 106, 107, 111, 114, 115, 116, 117, 118, 120, 124, 125 (Epidella), 130; 1892, Oct. 7, 172, 186, 187, 213 (gen. of Tristominae) (syn. Phyllonella); 1893, 8, 210; 1899, 92, 96, 98, 100, 101; 1902b, 137-145, figs. 1-4; 1902c, July 1, 401; 1903, 335 [= Phyllonella] (subf. An-cyrocotylinae) (f. Tristomidae); 1905, 75.—Pratt, 1900a, 646, 648 (key) (on skin of marine fishes), 658.—Scott, 1901, 142; 1905, 117 (Epidella).—St.-Remy, 1898, 532.—Tasch., 1878, 566 (syn. of Trist. Cuv.).
- 1891: Epidella Mont., 1891, 125 (for Epihdella).—Scott, 1905, 117.
- 1888: Epihdella Mont., 1888, 52 (for Epihdella).
- bumpusii* Lint., 1900a, 267, 269, 275, 286-287, pl. 34, figs. 11-15 (in *Dasyatis centrura*; Woods Hole, Mass.).; 1901, 414, 433, 461.—Heath, 1902, 112.—Mont., 1902, 137, 138, 140, 141, 142, 143, 145.—Pratt, 1900a, 655, fig. 5, 657, 658 (key).
- diadema* Mont., 1902, v. 15, 137-145, figs. 1-4 (in *Trygon violacea*), 143 to (Phyl-line); 1902, July 1, 401; 1905, 75.
- hendorfii* (Linst., 1889) Goto, 1894, 233 (in *Coryphæna hippurus*).—Braun, 1890a, 418, 429, 437, 441, 444, 453, 460, 469, 470, 472, 473, 474, 490, 527, 547, 550.—Heath, 1902, 112 to (Phylline).—Linst., 1904, 678.—Mont., 1891, 101, 105, 107, 108, 115, 119, 120, 125, 126, 130, pl. 5, fig. 8, pl. 6, fig. 22; 1892, Oct. 7, 172 (hendorfii); 1893, 49; 1902, 137, 138, 142, 143, 144 (hendorfii).
- hendorfi* Mont., 1902, 144 (for hendorfii).
- hendorfii* Mont., 1892, Oct. 7, 172 (for hendorfii).
- hippoglossi* (Mueller, 1776) Blainv., 1828a, 567.—Ben., 1858a, 1861a, 21-23, 36-37, 167, 195, pl. 2, figs. 1-10, pl. 3, figs. 1-8 (includes *Tertia pediculorum* sp. Baster; Trist. hamatum Rathke) (in *Pleuronectes hippoglossus*).—Ben. & Hesse, 1864, 69 (in *Hippoglossus vulgaris*).—Braun, 1889k, 621; 1890a, 411, 419, 423, 438, 441, 444, 445, 453, 458, 475, 483, 488, 519, 527, 547, 551; 1890c, 597.—Dies., 1850a, 427 (to Phylline); 1859c, 437 (to Phylline).—Gamb., 1896a, 55, fig. 22c.—Heath, 1902, 111.—Linst., 1901, 280.—Massa, 1906, 49.—Mont., 1888a, 13, 19, 53 (hippoglossus), 87; 1891, 105, 106, 107, 111, 114, 115, 116, 118, 119, 120, 125, 126, 130, pl. 5, figs. 5, 6, pl. 6, figs. 24, 25; 1892, Oct. 7, 172; 1899, 96; 1902, 137, 138, 140, 141, 142, 143, 144, 145; 1905, 75.—Odhn., 1905, 370-372 (syn. Trist. hamatum).—Par., 1896, 1 (in *Hippog. vulg.*; North Sea).—Schoett, 1896, 253-265, 1 pl.—Scott, 1901, 142 (in Halibut; Scotland); 1905, 117 (Epidella).—Staff., 1904, May 3, 482 (on Hippog. hippoglossus; Canada).—St.-Remy, 1898, 532.—Tasch., 1878, 568 (to Trist.).—Also reported for *Hippoglossus maximus*.
- hippoglossi* var. *pleuronectes* Mont., 1889, 117 (MS. name in Leuck. Coll., renamed Trist. uncinatum).
- hippoglossii* Ben., 1858a, 1861a, 21 (for hippoglossi).
- hippoglossus* Mont., 1888, 53, for hippoglossi.
- ishikawæ* Goto, 1894a, 234-235, pl. 26, figs. 1-3 (on *Lethrinus*; Hagi, Japan, August).—Mont., 1899, 96; 1902, 137, 142, 143.—St.-Remy, 1898, 532-533 (ishikawai).
- ishikawai* St.-Remy, 1898, 532-533, for ishikawæ.
- monticelli* Mont., 1902, 143 for monticellii.
- monticellii* (Par. & Per., 1895) Par., 1896, 1 (in *Mugil auratus*; Italy) to (Phyl-line).—Mont., 1902, 137, 142, 143 (monticelli).—St.-Remy, 1898, 533-534.
- ovata* Goto, 1894a, 234-237, pl. 26, figs. 4-8 (in *Anthias schegelii*; Misaki, Japan, August).—Mont., 1899, 96; 1902, 137, 142, 143.—St.-Remy, 1898, 533.

EPIBDELLA—Continued.

producta Linst., 1903, 354–356, figs. 5–6 (in *Solea vulgaris*).—Odh. n., 1906, 65–66 (syn. of *E. soleæ*).

sciænæ Ben., 1856, 502–508, 1 pl., figs. 1–4 (on *Sciænæ aquila*; Italy); 1858a, 1861a, 23–37, 195 (in *Sc. aq.*).—Ben. & Hesse, 1864, 69–70 (*E. sciænæ*, syn. of *Benedenia elegans*).—Braun, 1890a, 411, 419, 518, 527, 547, 552.—Fraip., 1880c, 442 (*sciænæ*).—Goto, 1894a, 233; 1899, 269–270, pl. 20, figs. 8–9.—Massa, 1906, 49.—Mont., 1888, 13, 87; 1891, 105, 107, 120, 125, 126, pl. 6, fig. 23; 1893, 4; 1902, 137, 141, 142, 143, 144, 145; 1905, 75.—Par., 1896, 1 (in *Sc. aq.*; Italy).—Sons., 1891, 263.—Tasch., 1878, 564, 565 (to Trist.).

sciænæ Fraip., 1880c, 442 (for *sciænæ*).

sciænæ Ben. & Hesse, 1864a, 69–70 (for *sciænæ*, syn. *Benedenia elegans*).

soleæ (Ben. & Hesse, 1863) Mont., 1890, 419; 1891, 105, 106, 107, 109, 111, 115, 116, 118, 119, 120, 124, 125, 126, 130, pl. 5, fig. 7, pl. 6, figs. 26–30; 1892, Oct. 7, 172; 1902, 137, 138, 139, 140, 142, 143, 144, 145.—Linst., 1903, 356.—Odh. n., 1906, 65–66 (syn. *E. producta*).—Par., 1896, 1 (in *Solea vulgaris*; France), to (*Phyllonella*).

squamula Heath, 1902a, 109–136, pls., 15, 16, figs. 1–19 (in *Paralichthys californicus*); 1902b, 843.—Massa, 1906, 49.—Mont., 1905, 75–76, to (*Phylline*).—Odh. n., 1905, 371.

EPIDELLA Mont., 1891, 125, for *Epibdella* q. v.

hippoglossi (Mueller, 1776) Scott. 1905, 117.

EPIHDELLA Mont., 1888, 52, for *Epibdella* q. v.

ERPOCOTYLE Ben. & Hesse, 1863, 87; 1864a, 87 (m. *lævis*).—Braun, 1890a, 413, 415, 416, 511, 516, 517, 523, 538, 539, 546; 1893a, 890.—Gamb., 1896a, 73.—Hoyle, 1890, 539 (one species from gills of *Mustelus lævis*).—Mont., 1888a, 8, 11, 13, 86, 89, 100; 1892, Oct. 7, 213 (gen. of *Polystominae*); 1903, 336 (subf. *Diaphorocotylinae*).—Pratt, 1900a, 646, 651 (key, “on gills of *Mustelus*”), 656, fig. 24.—Tasch., 1879, 253–254, 255; 1879, 69.

circularis Linst., 1904, 493–494, figs. 18–20 or 1904, 17–18, figs. 1–3 (in *Acipenser ruthenus*).

lævis Ben. & Hesse, 1863, 1864a, 87–89, pl. 7 bis, figs. 1–9 (in *Mustelus lævis*).—Braun, 1890a, 414, 418, 539, 548, 551.—Linst., 1903, 280.—Mont., 1888a, 8, 13.—Pratt, 1900a, 656, fig. 24, 657.—Tasch., 1879, 254 (in *Must. læv.*).

ERTOPDELLA Rathke, 1843, 238 (for *Entobdella*?).

ETEROCOTYLEA Mont., 1899, 81, 88, 107 (for *Heterocotylea*).

EUBUCEPHALUS Dies., 1855a, 395 (m. *Bucephalus polymorphus*), subg. of *Bucephalus*.

(EUCERCARIA) Dies., 1855a, 385–388 subg. of *Cercaria*; 1858d, 246 (renamed *Acanthocephala*).

brachyura (Dies., 1850) Dies., 1855a, 386; 1858d, 257.

brunnea (Dies., 1850) Dies., 1855a, 387; 1858d, 247.—See *Dist. echinatum*, type of *Echinost.*

chlorotica (Dies., 1850) Dies., 1855a, 386; 1858d, 253.

fallax (Dies., 1850 pars) Dies., 1855a, 387–388; 1858d, 248.

minuta (Nitzsch, 1817) Dies., 1855a, 385.

neglecta (Fil., 1854) Dies., 1855a, 386–387; 1858d, 246.

vesiculosa (Dies., 1850) Dies., 1855a, 385; 1858d, 254.

virgula (Fil., 1837) Dies., 1855a, 386; 1858d, 260.

EUCOTYLE Cohn, 1904, 238 (m. *nephritica*).

nephritica (Mehlis, 1846) Cohn, 1904, 237–238, fig. 4.

EUMEGACETES Looss, 1900, Dec. 3, 602, *Megacetes* Looss, 1899 [nec Thomas, 1859], renamed, hence type “*triangularis*” of Looss = *emendatus* Braun.—Braun, 1901f, 568; 1902b, 53, 92, 93, 94, 95, 96.—Pratt, 1902a, 889 (related to *Dicrocoeliinae*), 904 (key).

contribulans Braun, 1901f, Apr. 25, 568 (in *Hirundo rustica*); 1901g, 895, 943; 1902b, 54, 93, 95, 96, fig. 54.—Poche, 1907, 126 (syn. of *crassus*).

crassus (Sieb., 1836) Poche, 1907, 126.

EUMEGACETES—Continued.

emendatus Braun, 1901f, 568, new name for *Dist. meropis* of Par. = *Megacetes triangularis* of Looss, not *D. triangulare* Dies.; also in *Caprimulgus europæus*; 1901g, 895; 1902b, 54, 93, 94, 97.—Looss, 1902m, 819, 823.

medioximus Braun, 1901g, 895–896 (in *Galbula grandis* Lath; Brazil); 1902b, 96, figs. 55, 56.

[*triangularis* of Looss, see *emendatus*.]

EUPOLYCOTYLEA Dies., 1850a, 289, 416 (subtribe of Polycotylea).—Braun, 1890a, 515.—Cerf., 1899a, 351.—Goldb., 1855, 18.

EURYCÆLIUM Hoyle, 1890, 539, for Eurycœlum.

EURYCÆLIUM Brock, 1886a, 543–547 (m. sluiteri); 1887a, 186–187 [not Eurycœlum Chaudoir, 1848].—Brand., 1891b, 266.—Braun, 1892a, 741, 742, 743, 744; 1893a, 886, 887, 894.—Hoyle, 1890, 539.—Looss, 1902, 839.—Luehe, 1901, 395, 481, 482, 484–488.—Mont., 1888a, 43, 92.—Pratt, 1902a, 889, 904 (key).—Spengel, 1892.—Stiles, 1901, 177.—Stiles & Hass., 1898a, 88, 90, 91 (type, *sluiteri*; syn. of *Hemiurus*).

1890: Eurycœlium Hoyle, 1890, 539, for Eurycœlum.

sluiteri Brock, 1886a, 543–547 (in *DiaCOPE metallicus*; Java); 1887a, 186–187.—Brand., 1891b, 265.—Braun, 1892f, 45–48; 1892h, 727–729, 741, 742.—Linst., 1887, —.—Looss, 1894, 234; 1899 (to *Hemiurus*).—Luehe, 1901, 484, 485.—Mont., 1893, 149.—Stiles, 1901, 177.—Stiles & Hass., 1898a, 90.—Zool. Anz., 1892, v. 15, 225.

(EURYSOMA) Duj., 1845a, 388, 406 (m. squamula), subg. of *Dist.* [not *Eurysoma* Koch, 1840, arachnoid; not *Gistl.*, 1829; not *Eurysomus* Young, 1866].—Baird, 1853a, 52.—Braun, 1893a, 885, 909.—R. Bl., 1891, 609.—Looss, 1899b, 535; 1902m, 750, 751.—Mont., 1888a, 92.—Stiles, 1901, 165.—Stiles & Hass., 1898a, 88, 98.

squamula (Rud., 1819) Duj., 1845a, 406 (type of *Eurysoma*) (to *D.* (*Dicrocœlium*) by Stoss., 1892, 20).

EUSTEMMA Dies., 1850a, 287, 317 (m. caryophyllum), 1855, 172; 1858e, 312, 322–323.—Brand., 1888a, 12, 13.—Braun, 1893a, 887, 894.—Goldb., 1855, 17.—Hoyle, 1890, 539.—Mont., 1888a, 84, 91.

caryophyllum Dies., 1850a, 317 (in *Falco pileatus*; Rio Parana, Brazil); 1855, 172, pl. 1, figs. 1–5; 1858e, 323.—Brand., 1888a, 5, 65 (syn. of *Holost. eustemma*); 1890a, 593 (syn. of *Holost. eustem.*).—Braun, 1893a, 903.

EURYTREMA Looss, 1907, Feb. 1, 127–134 (tod. pancreaticum Janson; Japan).

celomaticum (Giard & Billet, 1892) Looss, 1907, Feb. 1, 132–134, fig. 2 (syn. *Dicrocœlium pancreaticum* Rail. & Marotel, 1898).

pancreaticum (Janson, 1889) Looss, 1907, Feb. 1, 128–132, 133, fig. 1.—[Janson, 1889a, is not accessible to us; our earliest reference is Railliet, 1890.]

EXACOTYLE Mont., 1888a, 8 (apparently for *Hexacotyle*); 1891, 109.

thynni De la Roche, 1811a?—Crety, 1892c, 399 (tynni).—Mont., 1890, 195; 1891, 129.

tynni Crety, 1892c, 399 (for *thynni*).

EXACOTYLINÆ Mont., 1905, 77.

FAICIOLA Mueller, 1774, 70, for *Fasciola*.

FASCINIA Raffinesque, 1815, 151 (nomen nudum; g. of *Fasciolaria*; to contain species of *Fasciola*, but these are not named).

FASCIOLA Linn., 1758a, 644, 648–649, includes *hepatica* (type by elimination, also by later designation, and also by first-species rule) and *intestinalis*.—Abildg., 1790, 35 (syns: *Fasc. intestinalis* Linn., *Planaria intest.* Mueller, *Ligula Bloch*, *Fasc. Goeze*), 36 (to *Dist.*), 58.—Ariola, 1900, 426 (of Linn., 1735, = *Schistocephalus*).—Biehringer, 1889a, 654.—Blainv., 1824a, 514; 1828, 585–587.—E. Bl., 1847, 278.—R. Bl., 1888a, 589; 1895, 730.—Bosc., [1802a], v. 1, 263–268.—Brand., 1888a, 8.—Braun, 1892a, 674; 1893a, 883, 885, 893, 894, 908; 1895b, 138; 1900a, 1643, 1668; 1903, 3 ed., 147.—Cobbold, 1879b, 15, 1883, 401 (syn. of *Dist.*); 1883x, 514; 1883v, 500.—Crep., 1837a, 309; 1845b, 20–22.—Cuv., 1817a, 40.—Deslongchamps, 1824o, 386.—Dies., 1850a, 307 (of Gmelin, syn. of *Hemist.*), 312 (of Gmelin, syn. of *Holost.*), 318 (of Schrank; syn. of *Diplodiscus*), 319 (of Goeze, syn. of *Monost.*), 331 (of Linn., syn. of *Dist.*), 400 (of Mueller, syn. of *Amphist.*), 411 (of Frœlich, syn. of *Notocotyle*), 412 (of Gmelin, syn. of *Polyst.*), 573 (of Linn., syn. of *Tetrabothriorhynchus*), 577 (of Goeze, syn. of *Caryophyllæus*), 579 (of authors, syn. of *Ligula*), 583;

FASCIOLA—Continued.

- 1858e, 332 (syn. of *Dist. giganteum*).—Fabricius, 1794, 26, 27.—Fischer, 1799, 96.—Hahn & Lefèvre, 1884a, 515.—Hémont, 1827, 9.—Herbst, 1787a, 14, 15, 21, 31, 36.—Hoyle, 1890, 539–540 (3 species, type hepatica).—Jackson, 1888, 644, 646, 654.—Joubin, [1892a], 29.—Lamarck, 1801a, 333; 1816, 180–181.—Lamouroux, 1824a, 559, 608; 1824b, 404; 1825a, 356.—Leblond, 1836f, 4.—R. Leuck., 1863, 530.—Looss, 1899b, 551, 557; 1901, 199, 208, 658; 1902, 746, 756.—Luehe, 1905, 146.—MacCallum, 1899, 707.—Macé, 1882, 25.—Montagu, 1811, 194–198, 199–200 (in poultry, see *Syngamus trachealis*).—Mont., 1893, 44, 153, 182; 1896, 168.—Mueller, 1774, 52, 70 (*Faiciola*).—Nitzsch, 1819, 397.—Nord., 1840, 613–618 (syn. *Dist.*).—Odhn., 1905, 339, 344, 346, 347.—Pallas, 1781c, 59.—Par., 1900, 190–197, 1 fig. (in Buenos Ayres).—Pratt, 1902, 883, 887 (key to).—Rafinesque, 1815, 151 (g. of *Fasciolaria*).—Rail & Marotel, 1898, 32–33.—Røederer, 1762, 537–539.—Røederer & Wagler, 1762, 194–210.—Rud., 1793a, 25; 1801, 50, 54; 1802, 61–62; 1809a, 21.—St. Vincent, 1824, 608.—Schneider, 1866, 7, 9, 11.—Schränk, 1803, 185.—Slawikowski, 1819, 8, 55, 56.—Sons., 1896, 112–116.—Stiles, 1894c (s. str.); 1895l; 1895m; 1896, 159; 1898a, 22, 27, 29; 1901, 163, 165, 174, 180; 1906, 14.—Stiles & Hass., 1898a, 88–89, 90, 95, 97 (type hepatica).—Tasch., 1879, 251 (of Gmelin, syn. of *Polyst.*).—Vogel, 1772, 648.—Ward, 1903, 865.—Wolffhügel, 1900, 129.
- 1774: *Faiciola* Mueller, O. F., 1774, 70, misprint.
- 1782: *Planaria* Goeze, 1782a, 168, [not Mueller, 1776, worm; not Brown, 1827, mollusk; not Lea, 1833, mollusk], includes *Fasc. hepatica* as *Pl. latiuscula*, hence type *P. latiuscula* Goeze, 1782.
- (1782): *Distoma* Retzius (1782); 1790, 32 [not *Distomus* Gärtner, 1774, mollusk; not Steph., 1827, coleopteron; not *Distoma* Savigny, 1816, mollusk], for *Planaria* Goeze, 1782, hence same type.
- 1815: *Distomopsis* Rafinesque, 1815, 151, *Distoma* Zed., renamed.
- 1825: *Distomum* Crep., 1825, for *Distoma*.
- 1845: *Distoma* (*Cladocœlium*, m. hepaticum) Duj., 1845a, 382, 388, 389.
- 1845: *Fasciolaria* Anonymous, 1845, 141, in *Encycl. Metropolitana*, Lond. [not Lamarck, 1799, mollusk], for *Fasciola* Linn.
- 1850: “*Distomum* Retzius,” 1782, in Dies., 1850a, 141.
- 1853: “*Cladocalium* Duj.” of Pontallié, 1853, 103–105 (for *Cladocœlium*).
- 1863: “*Distomum* (*Fasciola*)” R. in Leuck., 1863, 530.
- 1876: *Fascolia* Adams, 1876, 764, misprint.
- 1892: *Cladocœlium* (Duj., 1845) as genus in Stoss., 1892, 7 of reprint.
- 1894: *Phasciola* Wilder, H. H., 1894, 24 [not *Phaseolus* Mont., 1875, mollusk] (for *Fasciola*).
- 1898: “*Clacocœlium*” of Stiles & Hass., 1898a, 89, misprint.
- abdominalis* Goeze, 1782a, 41, 169, 186–190, pl. 16, figs. 4–9, includes *F. intestinalis*, 1758, and *Ligula piscium* Bloch.—Baird, 1853a, 95 (syn. of *Lig. simplicissima*).—Dies., 1850a, 580 (syn. of *Lig. diagramma*).—Nord., 1840, 590 (syn. of *Lig. cingulum*; *F. a.* of Zed., syn. of *Lig. contortrix*).—Rud., 1810a, 20 (syn. of *Lig. cingulum*), 18 (syn. of *Lig. contortrix*), 29 (syn. of *L. carpionis*).
- æglefine* Nicoll, 1907, 73 (syn. of *Dist. simplex*) for *æglefini*.
- æglefini* Mueller, 1776, 224 (in *Gadus æglefinus*; intestine); 1777, 33, pl. 30, fig. 4 (in *Ga. ægl.*); 1779a, 65 [pl. 3, fig. 4].—Bosc, 1802a, 272 (*æglefini*, misprint).—Bruguère, 1791a, pl. 7a, fig. 15.—Cobbold, 1858b, 157.—Dies., 1850a, 343 (syn. of *Dist. simplex*).—Gmelin, 1790a, 3056.—Herbst, 1787a, 33.—Lamarck, 1816, 182; 1840, 619.—Lamouroux, 1824a, 563.—Levin., 1881a, 67 (syn. of *Dist. sim. Rud.*? Olss.).—Nord., 1840, 619 (syn. of *Dist. sim.*).—Odhn., 1901, 512.—Rud., 1809a, 370.—Schränk, 1788, 19.—Type of *Sinistroporus* 1904.
- ægrefini* Bosc, 1802a, v. 1, 272, misprint for *æglefini*.
- ægyptiaca* (Looss, 1896) Sons., 1896, 112; 1896, 1.—Braun, 1903, 3 ed., 152.—Looss, 1899b, 557; 1902m, 782, 783 (syn. of *F. gigantea*).—Ward, 1903, 866.
- alata* (Goeze, 1782) Rud., 1793a, 31; 1795a, 15; 1802, 84–85; 1809a, 403 (to *Dist.*).—Brand., 1888a, 9–60 (to *Hemist.*).—Dies., 1850a, 308 (to *Hemist.*).
- alosa* Hermann, 1783a, 46, pl. 2, fig. 8a–b (in *Maifisch im Rhein*, *Clupea alosa*).—Baird, 1853a, 54, syn. of *Dist. appendiculatum*).—Dies., 1850a, 370 (syn. of *Dist. appen.*).—Rud., 1809a, 401, 437 (= *Dist. clupeæ rhenanæ*).

FASCIOLA—Continued.

- americana* Hass., 1891c, 539 (carnosa renamed) (in *Bos taurus*, U. S. A.).—Leuck., 1892b, 797.—Stiles, 1898a, 49.—Ward, 1895, 253 (syn. of *F. magna*), 332 (in *Bos taurus*), 335 (in *Ovis aries*), 338 (in *Equus caballus*); 1903, 866 (syn. of *F. magna*).
- anatis* (Schränk, 1788) Gmelin, 1790a, 3055 (based especially upon a parasite (Plan. teres pro parte Goeze, 1782a, 174, pl. 13, figs. 8–11) from *Anas boschas domestica* and made to include *Cuculanus conoideus* Bloch, 1782a, and *Hirudo fasciolaris* Mueller).—Bosc, 1802a, v. 1, 269–270.—Dies., 1850a, 383 (syn. of *Dist. echinatum*).—Rud., 1809a, 418, 431–432 (*anatis* Bruguière, 1791 = *anatis domesticæ*).—Stoss., 1892, 167 (syn. of *Echinost. echinatum*).
- anguillæ* Gmelin, 1790a, 3056 (refers to *Leeuwenhœk* arc. nat., p. 316, fig. 6) (in *Anguilla*).—Bosc, 1802a, v. 1, 272.—Dies., 1850a, 340 (syn. of *Dist. polymorphum*) (in *Anguilla vulgaris* (Leeuwenhœk), May, August; Greifswald).—Lamarck, 1816, 182.—Nord., 1840, 618 (syns. *Dist. polymorphum* and *D. anguillæ*).—Rud., 1809a, 363.
- angulata* Mueller, 1774, 58–59 (in fundo arenareo oceani).—Fabricius, 1798, 53 (to Plan.).—Verrill, —, — (to *Amphiporus*).
- angusta* (Rail., 1895) Looss, 1899, 557.—Braun, 1903, 3 ed., 152, fig. 98 (Gouvea's case in French naval officer at Rio; had been in Senegambia) thinks = *ægyptiaca*.—Looss, 1899b, 557; 1902m, 782, 783 (syn. of *gigantea*).—Ward, 1903, 704; 1903, 864, 866.
- anseris* Gmelin, 1790a, 3055 (*F. verrucosa* Frœlich, 1789, renamed; in *Anser domesticus* Europe).—Baird, 1853a, 45.—Ben., 1858a, 1861a, 78 (syn. of *Monost. verrucosum*).—Bosc, 1802a, v. 1, 270.—Dies., 1840, 234; 1850a, 411 (syn. of *Notocotyle triseriale*).—Nord., 1840, 602 (syn. of *Nocotylus triserialis*).—Odhn., 1905, 366 (syn. of *Catantropis verrucosa* [type]).—Rud., 1809a, 331.
- apiculata* Rud., 1803, 31–32, *Dist. stridulæ* Reich, 1801, renamed; 1809a, 423, to (*Echinost.*).—Dies., 1850a, 386.
- appendiculata* Rud., 1802, 78–79, pl. 2, figs. 6a–b (nec Frœlich, 1802) (in *Clupea alosa*; Europe); 1809a, 400.—Baird, 1853a, 54.—Dies., 1850a, 370.—Luehe, 1901, 396.—Stiles & Hass., 1898a, 90, 96 (type of *Hemimurus*).
- appendiculata* Frœlich, 1802, 56–58, pl. 2, figs. 8–9 (nec Rud., 1802) (in *Anas boschas*; Europe).—Dies., 1850a, 346 (syn. of *Dist. oxycephalum*).—Hahn & Lefèvre, 1884a, 516 (syn. of *Dist. oxyceph.*).—Rud., 1814a, 105, renamed *Dist. papillatum*.
- apri*, see sub *F. hepatica*.
- ardeæ* Gmelin, 1790a, 3055 (in *Ardea stellaris*, int.; Europe).—Dies., 1850a, 388 (syn. of *Dist. ferox*).—Bosc, 1802a, v. 1, 270.—Rud., 1809a, 432.
- armata* Rud., 1793a, 26, *F. putorii*, 1790, renamed; 1802, 88–90; 1809a, 416.—Dies., 1850a, 382 (syn. of *Dist. trigonocephalum*).
- atomon* Rud., 1802, 70 (in *Pleuronectes flesus*; Greifswald); 1809a, 362.—Dies., 1850a, 340 (to *Dist.*).—Odhn., 1901, 506; 1905, 320 (to *Podocotyle* [type]).
- barbata* Linn., 1761, 505 (in *Loligo*; Sweden).—Abildg., 1790, 38.—Baird, 1853a, 115 (to *Tetrabothriorhynchus*).—Braun, 1893a, 883.—Dies., 1850a, 573 (syn. of *Tetrabothriorhynchus migratorius*).—Fabricius, 1780, 328–329.—Herbst, 1787a, 32.—Luehe, 1905, 334 (= *Tetrarhynchus*).—Mueller, 1776, 223; 1780, 203.—Pallas, 1781, 109.—Rud., 1809a, 441; 1810a, 385; 1819a, 130 (syn. of *Tetrarhynchus megabothrius*).—Sieb., 1850, 232 (syn. of *Tetrarhynchus macrobothrius*).—Vaullegeard, 1899, 167.
- bergi* Par., 1900, 193–194, 1 fig. (in *Rana platana*; Montevideo).
- [*bilamellata* Pallas, 1774, 20 (“*Fasciolæ bilamellatæ* Linnæi”).]
- bilis* (Braun, 1790) Gmelin, 1790a, 3054 in *Falco melanaëtus*.—Bosc, 1802a, v. 1, 269 (billis).—Dies., 1850a, 376 (syn. of *Dist. crassiusculum*).—Rud., 1809a, 408.
- billis* Bosc, 1802a, v. 1, 269, for *bilis*.
- binodis* Mueller, 1776, 224 (in fish); 1779a, 69 [pl. 30, fig. 8]; 1788, 34–35.—Bosc, 1802a, 271–272.—Bruguière, 1791, pl. 79, fig. 24.—Dies., 1850a, 379 (to *Dist.*).—Gmelin, 1790a, 3056.—Herbst, 1787a, 33.—Rud., 1809a, 439.—Schränk, 1788, 20.

FASCIOLA—Continued.

- blennii* Mueller, 1776a, 224 [in *Blennius viviparus*]; 1777, v. 1, 32, 33, pl. 30, fig. 5, v. 2, 53, pl. 78, figs. 9–12 (in *Cottus scorpius* and *Blennius viviparus*); 1779a, 64, 66 [pl. 30, fig. 5]; 1780, 217; 1784, 116, pl. 28, figs. 9–14.—Bosc, 1802a, v. 1, 272.—Bruguière, 1791a, pl. 79, figs. 16–18.—Dies., 1850a, 344 (syn. of *Dist. divergens*).—Gmelin, 1790a, 3057.—Herbst, 1787a, 33.—Lamarck, 1816, 183.—Nord., 1840, 619 (syn. of *Dist. divergens* Rud.).—Rud., 1793a, 30; 1809a, 371.—Schränk, 1788, 19.
- boschadis* Schränk, 1803, 209.
- boum* Gmelin, 1790a, 3054, see sub *hepatica* boum.
- brama* Mueller, 1776, 224, v. 1, 33, pl. 30, fig. 6 (in *Cyprinus brama*; intest. Norway, Denmark); 1779a, 66 [pl. 30, fig. 6].—Bosc, 1802a, v. 1, 274.—Bruguière, 1791, pl. 79, fig. 19.—Cobbold, 1858b, 157.—Dies., 1850a, 341 (syn. of *Dist. globiporum*).—Gmelin, 1790a, 3058.—Herbst, 1787a, 33.—Looss, 1894a, 41 (syn. of *Dist. gl.*); 1902m, 757 (and *Dist. gl.*), 758, 760 (perhaps an *Allocreadium*, *Bunodera*, or *Asymphyllodora*), 763, 765.—Nord., 1840, 619 (syn. of *Fasc. globifera*).—Rud., 1809a, 364.—Schränk, 1788, 20.—Sramek, 1901, 107 (syn. *Dist. gl.*).—Stiles, 1901, 168, 169, 192.—Stiles & Hass., 1898a, 94, 95, 97 (= *globipora*, type of *Sphærost.*).
- brunnea* Mueller, 1774, 54.—Johnston, 1865, 9.
- buchholzii* “Jørdens, 1801,” of Braun, 1889a, 320 (lapsus for “*Fasc. hepatica*, *ovata plana*, *Buchholzii*” = *Dicrocoelium lanceatum*).—Stiles, 1898a, 55.
- buteonis* Gmelin, 1790a, 3054 (in *Falco buteo*) based on Gœze, 1782a, 85.—Bosc, 1802a, v. 1, 269.—Rud., 1809a, 430 (= *Dist. buteonis* (in *Falco buteo*)).
- candida* Mueller, 1774, 71 (in littore Grœnlandiæ sub lapidibus).—Verrill, — (? syn. of *Tetrastemma candidum* (F.) Oersted).
- capitata* Mueller, 1774, 70.
- carnosa* Hass., 1891a, 208–209, 1 fig. (in *Bos taurus*; U. S. A.); 1891b, 464–465; 1891c, 359 (syn. of *F. americana*).—Huber, 1896a, 575, 576.—Leuck., 1902b, 797, 798.—Stiles, 1898a, 49.—Ward, 1895, 253 (syn. of *F. magna*), 332 (in *Bos taurus*), 335 (in *Ovis aries*), 338 (in *Equus caballus*); 1903, 866 (syn. of *F. magna*).
- caudata* Mueller, 1774, 70.—Buttel-Reepen, 1902, 166, 170, pl. 6, fig. 6.—Schränk, 1803, 171 (= *Plan. acuminata*).—Slawikowski, 1819, 38.
- caudata* Bosc 1802a, v. 1, 271, pl. 9, fig. 6 (nec Mueller, 1774) (in *dorade* = ? *Chrysophys aurata*; *Coryphæna hippurus*).—Dies., 1850a, 373 (syn. of *Dist. tornatum*); 1859c, 431 (syn. of *D. tornatum*).—Rud., 1809a, 436 (= *Dist. coryphænæ*); 1819a, 685.
- cervi* (Schränk, 1790) Zed., 1790, 65–74, pl. 3, figs. 8–11.—Dies., 1836, 247; 1850a, 401 (syn. of *Amphist. conicum*).—Fischder., 1903h, 504 (type of *Paramphist.*), 506 (in *Cervus elaphus*).—Rud., 1809a, 351.—Schränk, 1803, 214.—Stiles, 1898a, 64.—[Type of *Paramphist.* 1901.]
- ciliata* Mueller, 1774, 55 (free form).
- cincta* Rud., 1803, 31 (in *Tringa vanellus*); 1809a, 422, to *D.* (*Echinost.*).—Dies., 1850a, 386 (to *Dist.*) (in *Vanellus cristatus*, *V. melanogaster*).
- [*cinerea* (anatomical term).]
- cirrata* [Rud., 1802 (see *Dist. cirratum*)]; 1809a, 376 to *Dist.*—Dies., 1850a, 350 (to *Dist.*) (Griefswald, June).
- cirrhatæ* Rud., 1802, v. 3 (1), 66–67, pl. 2, fig. 4 (in *Corvus frugilegus*).—Braun, 1902b, 43 (syn. of *Plagiorchis cirratus*).
- clavata* Menzies, 1791, 187–188, pl. 17, fig. 2 (in *Scomber pelamys*; Pacific) [type of *Hirudinella*, 1828]; 1794, 58–59, pl. 8, fig. 2.—Baird, 1853a, 59.—Blainv., 1824a, 518 (“*hirudinelle*”); 1828, 586.—Buttel-Reepen, 1900a, 586; 1902, 166, 168, 178, pl. 6, fig. 3.—Cobbold, 1879b, 459.—Darr, 1902, 663.—Dies., 1850a, 366 (to *Dist.*); 1859c, 431 (*Dist. clavata* Rud., partim).—Rud., 1809a, 391.—Stiles, 1901, 192.
- clupeæ* Schränk, 1788, 20 (in rheinischen Mayfische).—Baird, 1853a, 54.—Dies., 1850a, 370 (syn. of *Dist. appendiculatum*).—Rud., 1809a, 437.
- collurionis* Schränk, 1790, 123 (in *Lanius collurio*); 1803, 211.—Dies., 1850a, 396 (to *Dist.*) (in *Lanius collurio*).—Rud., 1809a, 430 (to *Dist.*).

FASCIOLA—Continued.

- colubri* Bosc, 1802, v. 1, 271, pl. 9, figs. 1-3 (in couleuvre d'Amérique).—Cobbold, 1859d, 364 (syn. of *Dist. bosci*).—Dies., 1850a, 398 (syn. of *Dist. colubri americani*) (in *Coluber* sp. *americana*).—Rud., 1809a, 434 (to *Dist.*).
- colymbi immeris* Viborg, 1795, 241 [*Fasciola* s. *Ligula*].—Dies., 1850a, 579.—Rud., 1810a, 27 (to *Ligula*).
- coryphæne* Bosc, 1802a, v. 1, 271, pl. 9, fig. 5 (in dorade).—Baird, 1853a (= *Hirudinella clavata*), 59.—Buttel-Reepen, 1902, 166, 168, 170, pl. 6, fig. 5.—Dies., 1850a, 373 (syn. of *Dist. tornatum*); 1859c, 431.—Rud., 1809a, 436 to *Dist.*; 1819a, 685.
- coryphæne hippuridis* Tilesius in litteris Rud., 1809a, 436 (syn. of *D. coryphæne*).—437.—Baird, 1853a, 59 (= *Hirudinella ventricosa*).—Buttel-Reepen, 1902, 166, 168.—Cobbold, 1879b, 461.—Dies., 1850a, 373 (syn. of *Dist. tornatum*).
- crassa* Rud., 1793a, 27 (= *Fasc. melis* Gmelin, renamed).
- crenata* Rud., 1802, 76-78, pl. 2, fig. 5, a-b (in *Gasterosteus aculeatus*, *Pleuronectes maximus*); 1809a, 404 (in *Gast. acul.*, *Pleur. max.*).—Baird, 1853a, 54 (= *Dist. appendiculatum*).—Dies., 1850a, 371 (syn. of *Dist. app.*).—Lander, 1904a, 1 (to *Hemirurus*).—Luehe, 1901, 399, 400.—Odhn., 1905, 352 (type of *Brachyphallus*).
- crenata* Frœlich, 1802a, 60-62, pl. 2, figs. 10-11 (nec Rud. (in *Fulica chloropus*)).—Dies., 1850a, 384 (syn. of *Dist. uncinatum*) (in *Gallinula chl.*, May & July).—Rud., 1814a, 102 (= *Dist. unc.*).
- crenata* Mueller, 1774, 64 (nec Rud., nec Frœlich).
- cucumerina* Rud., 1804, 166 (in liver of *Pleuronectes maximus*).
- cygnoides* Schrank, 1803, 212.
- cylindracea* (Zed., 1800) Rud., 1802, 83-84; 1809a, 393 (in *Rana esculenta*, *R. temporaria*).—Lamarck, 1816, 183.—Looss, 1894a, 64 (to *Dist.*).—Nord., 1840, 620 (to *Dist.*).—Stiles & Hass., 1898a, 84.
- cyprini carassii* Viborg, 1795, 242.
- delicatum* (Rud., 1809) Blainv., 1828a, 585.
- denticulata* Rud., 1802, 91-92, pl. 2, fig. 8, a-c (in *Sterna hirundo*); 1809a, 424.—Dies., 1850a, 392 (to *Dist.*).
- disticha* Mueller, 1776a, 224; 1788, 35, pl. 30, fig. 9; 1779a, 69, pl. 30, fig. 3 [sic]=fig. 9.—Bosc, 1802a, v. 1, 272.—Bruguière, 1791a, pl. 79, fig. 25.—Dies., 1850a, 378 (to *Dist.*).—Gmelin, 1790a, 3056.—Herbst, 1787a, 33.—Rud., 1809a, 367, 440 (to *Dist.*).—Schrank, 1788, 20; 1803, 212-213.
- echinata* Nord., 1840, 621 (syn. of *F. trigonocephala*).
- elaphi* Gmelin, 1790a, 3054 (*Festucaria cervi*, renamed) (in *Cervus elaphus*).—Bosc, 1802a, v. 1, 269.—Dies., 1836, 247; 1850a, 401 (syn. of *Amphist. conicum*).—Fischer., 1903h, 504 (syn. of *Paramphist. cervi*), 506.—Nord., 1840, 627 (syn. of *Amphist. con.*).—Rud., 1809a, 350.—Stiles, 1898a, 64.—Ward, 1895, 256 (syn. of *Amphist. conicum*), 332 (in *Bos taurus*), 335 (in *Ovis aries*).
- elegans* Rud., 1802, 65-66 (in Sperling, Greifswald).—Braun, 1902b, 38 to *Plagiorchis*.—Dies., 1850a, 350 (to *Dist.*).—Rud., 1809a, 375.
- epatica* Rosa, 1794, 5, dell' *Ardea purpurea*.—Braun, 1900h, 19 (? syn. of *Clinost. heterost.*).—Dies., 1850a, 353 (syn. of *Dist. heterost.*).
- epatica* Brera, 1809a, 92-98, pl. 1, figs. 24-25.—Sons., 1884, 21.—For *hepatica*.
- equi* Gmelin, 1790a, 3054, var. of *Fasc. hepatica*.
- erioeis* Mueller, 1784, 92, pl. 72, figs. 4-7; 1788, 42, pl. 72, figs. 4-7 (in *Salmo eriox*).—Bosc, 1802a, v. 1, 274.—Bruguière, 1791a, pl. 80, figs. 3-4.—Dies., 1850a, 363 (syn. of *Dist. hyalinum*).—Gmelin, 1790a, 3057.—Harz, 1881c, 5 (syn. of *D. hyalinum*).—Lamarck, 1816, 183.—Nord., 1840, 619-620 (includes *D. hy.*, *D. rosaceum*, *D. perlatum*).—Rud., 1809a, 389.
- excavata* Rud., 1803, 28-29 (in Storch, *Ardea ciconia*; Greifswald); 1809a, 399.—Dies., 1850a, 309-310 (to *Hemist.*).
- exesa* (Rud., 1819) Blainv., 1828a, 586.
- farionis* Mueller, 1784, 91, pl. 72, figs. 1-3 (in *Salmo fario*); 1788, 42, pl. 72, figs. 1-3.—Bosc, 1802a, v. 1, 274.—Bruguière, 1791a, pl. 80, figs. 1, 2.—Dies., 1850a, 380 (syn. of *Dist. laureatum*).—Frœlich, 1802a, 62-63, pl. 2, figs. 4, 5.—Gmelin, 1790a, 3058.—Knoch, 1862, 19.—Nord., 1840, 621 (syn. of *F. laureata*).—Odhn., 1905, 353.—Rud., 1809a, 413; 1814a, 102 (syn. of *Dist. laureatum*).

FASCIOLA—Continued.

- ferox* Rud., 1795a. 15-17 (in *Ardea ciconia*; Greifswald); 1802. 90-91; 1809a. 426 to D. (Echinost.).—Dies., 1850a. 388 (to Dist.).—Nord., 1840. 622 (syn. of *Fasc. trigonocephala*).
- fimbriata* Goeze. 1782a. 180. pl. 15. figs. 4-5.—Abildg., 1790. 32 (cf. *Phylline*).—Baird, 1853a. 97 (syn. of *Caryophyllæus mutabilis*).—Ben., 1858a, 1861a, 115 (syn. of *Car. mutab.*).—Braun. 1894.—Dies., 1850a. 577 [*Fasciolaria*].—Nord., 1840. 633 (syn. of *Car. piscium*).—Rud., 1810a. 9 (= *Car. mut.*).
- flaccida* Mueller. 1774. 57-58 (free form).
- furcata* (Bremser. 1819) Blainv., 1828. 586.
- fusca* Pallas, 1774. 21-22. pl. 1. fig. 13. a-b (in aq. stag.; Europe).
- fusca* Bosc, 1802a. v. 1. 271. pl. 9. fig. 4 (in *doræ*; [not Pallas, 1774]).—Baird. 1853a. 59 (= *Hirudinella ventricosa*).—Buttel-Reepen. 1902. 166. 168. 170. pl. 6. fig. 4.—Cobbold. 1879. 459. 460. 461.—Darr. 1902. 664.—Dies., 1850a. 366 (syn. of *Dist. clavatum*): 1859c. 431.—Herbst. 1787a. 36.—Poirier. 1885. (to Dist.).—Rud., 1809a. 436.
- gibbosa* Rud., 1802b. 81-82. pl. 2. fig. 7 (in *Esox belone*): 1809a. 399 to Dist.—Odh., 1905. 356 (to *Lecithaster*).
- gigantea* (Dies., 1858) Cobbold. 1858. 1860a. 4 (in *Camelopardalis giraffa*): 1864. 161 (see *F. gigantea*); 1876. 303; 1879b. 25. 322. 421.—R. Bl., 1895. 733-734 (includes *F. hepatica* var. *angusta*): 1900. 488.—Braun. 1893a.—Dies., 1858.—Fitz. 1876b. 514.—Gervais et Ben., 1858.—Hoyle. 1890. 539.—Leuck., 1863; 1879-93.—Looss. 1899b. 557; 1902m. 782. 783 (syns. *gigantica*. *angusta*. *ægyptiaca*).—Sons., 1889. 275; 1890. 1896. 113. 114.—Stiles. 1895. 139-143. pl. 5 (includes *Dist. hepaticum* pars Gervais & Ben.): 1898a. 49.—Stoss., 1892. 9 (to *Cladocœlium*).—Also reported for *Bos taurus*.
- gigantica* Cobbold. 1855a. 262-266. pl. 7. figs. 1-15 (in liver of *Giraffa camelopardalis*): 1855b. 3-7. pl. 7. figs. A. B. 1-15; 1856a. 108-109; 1858b. 167; 1860a. 4.—Braun. 1903. 3 ed., 152 (places Gouvea's (1895) case here); 1906. 157 (in giraffe).—Dies., 1858e. 332 (to Dist.).—Stiles. 1898a. 23. 29. 48. 49. 50. 51. 137. 140. 141. fig. 27.—Ward. 1903. 866 (closely related to *F. angusta*).
- glauca* Mueller. 1774. 60.
- globifera* Lamarek. 1816. 182 for *globipora* 1802.—Baird. 1853a. 53.—Lamouroux. 1824a. 563.—Nord., 1840. 618-619 (includes *Dist. globiferum*. *D. globiporum*. *Fasc. bramæ*).
- globipora* Rud., 1802. 72-74 (in *Cyprinus erythrophthalmus*): 1809a. 365.—Dies., 1850a. 341 (to Dist.).—Looss. 1894a. 41 (to Dist.); 1902m. 763.—Stiles. 1901. 168. 169. 192.—Stiles & Hass., 1898a. 95 (type of *Sphærostoma*).
- grossa* Mueller. 1774. 67.—To *Planaria* in 1776.
- gruis* Gmelin. 1790a. 3055 (in *gruis*).—Baird. 1853a. 55 (= *Dist. echinatum*).—Bosc. 1802a. v. 1. 270.—Dies., 1850a. 383 (syn. of *Dist. echinatum*).—Rud., 1809a. 432.
- gulo* Mueller. 1774. 56 (free form).—Schränk. 1803. 166 (to *Plan.*).
- halecis* Gmelin. 1790a. 3058 (in *halece*).—Dies., 1850a. 372 (syn. of *Dist. ocreatum*).—Mont., 1891. 496.—Rud., 1809a. 398 (syn. of *D. ocr.*).
- helluo* Mueller. 1774. 64-65.—Johnston. 1865. 13.—Schränk. 1803. 169 (to *Plan.*).
- hepatica* Linn., 1758a. 648-649 (in *aquis dulcibus ad radices lapidum. inque hepate pecorum*. Diss. de Oribus; Europe): 1761. 505; 1766. 1077; 1792. 3053-3054; 1801. 33-34.—Abildg., 1790. 36 (to Dist.).—Adams. 1887. 318.—Adenot. 1863. 112.—Aitken. 1866. 804. 839; 1872. 146. 205; 1874. 58.—Aldrovandus. (1602).—Anaker. 1892c. 94.—Andral. 1829d. 615.—Andry. 1701. 121-122.—Ariola. 1900. 426 (of Linn., 1735. syn. of *Schistocephalus dimorphus*).—Armatage. 1895. 429. 430. 432. 433. 440.—Australian Pastoralists Rev., 1896. v. 5. 610-611.—Bailliet. 1866b. 15. 18. 90. 99 (to Dist.).—Baird. 1853. 49 (pars = *Schistocephalus dimorphus*).—Barbut. 1783. 14-15. pl. 2. fig. 1.—Bauhin. (1677).—Ben., 1858a. 1861a. 172.—Bert & R. Bl., 1885. 585-586. fig. 539.—[Bidloo. 1698a.].—[Biggs. 1890a. 36-37.].—Blainv., 1828. 585.—[Blakeway. 1879a.].—E. Bl., 1847. 279-291.—R. Bl., 1888a. 543 (to Dist.). 602 (of Bloch. 1782. syn. of *Dist. lanceolatum*); 1890. 66-75. figs. 28-33; 1894g. 461-462; 1894h: 1895. 730-733. figs. 78-79; 1900g. 488.—Bloch. 1782a. 5-6. pl. 1. figs. 3-4.—Blumenbach. 1825a. 241.—[de Bonis. 1876a. 155.].—Borlase. 1758a.—Bosc [1802a], v. 1. 268.—[Bonvicini. 1881a. 133-134.].—Braun. 1893a. 888;

FASCIOLA—Continued.

1893b, 180; 1900h, 9; 1901e, 327; 1903, 3 ed, 147-151, figs. 92-97 (syns. Dist. hep. Retz., Fasc. humana Gmelin, Dist. caviæ, Cladocœlium hep. Stoss), 150; 1906, 140, 142, 143, 145, 150-156, 157, figs. 74, 77, 81, 83-88.—Brett, 1881b, 139-142.—[Brown, 1881a; 1882b; 1886b.]—Bruguière, 1791, pl. 79, figs. 1-8.—[Bruck, 1865a, 33-35.]—de Bry, 1879.—Chabert, 1787a, 25 (63-64); 1791, 152.—Civini, 1842.—Clerc, 1907, 557, 558.—Cobbold, 1855a; 1855b, 3, 4, 6; 1866, 6; 1872b, 91; 1876, 210, 211, 303; 1879b, 14, 25, 28, 48, 50, 315, 317, 318, 322-331, 356, 404, figs. 17, 61; 1882, 699-704, pl. vi, figs. 2-8; 1883v, 500; 1884g, 976.—Cuvier, 1798, 633-634; —, v. 2, 339; 1817a, 41-42; 1830, 263-264; 1831a, 364.—Daldorf, 1793, 159 (hepatum).—Dandolo, 1806, 28 pp.—Darr, 1902, 649, 652, 657, 663, 684, 687.—[Daubenton, 1750-52.]—Dav., 1877a, 2 ed., lxxv, figs. 36-38.—[Delafond, 1854a, 3-56, figs. 12-13.]—Delorme, 1861, 241.—Desmars, 1762.—[Dickens, 1830a, 645-647.]—[Didry, 1832a, 139-147.]—Dies., 1850a, 332 (to Dist.), 333 (of Bloch, syn. of Dist. lanceolatum), 401 (of Mueller, syn. of Amphist. conicum), 584 (pars of Linn., syn. of Schistocephalus dimorphus).—Dinwiddie, 1892a, 3.—Dowker, 1882a, 10, 11, 12, 13, pl. 1, fig. B. 1, pl. 2 E, figs. 1-2.—Drosse (1856a).—Dunglison, 1893a, 424, 821.—Eber, (1798a), 22.—[Ellis, 1749.]—[Faber, 1670, 147.]—Fabricius, 1780, 327-328 (in sheep); 1794, 29.—Fil., 1854a, 27.—Fischder, 1903h, 504 (of Mueller, syn. of Paramphist. cervi).—La Fosse, 1772, 157; 1774, 320; 1779, 139.—Frelich, 1802a, 55-56.—Gabucinus, 1597.—Galli-Valerio, 1898b; 1898c, 7, 8.—Gamb., 1896a, 67.—[Gemma, 1575a, 40.]—Gerlach, 1854; 1862.—[Gesnerus, 1551.]—Giard & Billet, 1892a, 613.—Gmelin, 1790a, 3053-3054.—[Gœze, 1782a, 169-172, pl. 14, fig. 1.]—Gomy, 1897a, 374.—Gurlt, 1849a, 120.—Hahn & Lefèvre, 1884a, 516 (to Dist.).—Haldemann, 1851, 46, pl. 77, fig. 30.—[Hamont & Fischer, 1834a; (1834b).]—Harley, 1876, 255-256, figs. 208, 209.—Harrop, 1870a, 12-16 (heptica).—[Heide, 1686-1688, 46-47 (in sheep).]—Herbst, 1787a, 31-32, pl. 4, figs. 1-2 [=Dicrocoelium lanceatum].—Hodgson, 1838a, 528-538.—Hoyle, 1890, 535-540.—Huber, 1896, 574.—[Huzard & Desplas, 1797a, 10.]—[Huzard & Tessier, 1817a.]—Jaksch, 1889a, 186.—[Joseph, 1883e, 171-172; 1883f, 322-323.]—Khouri, 1904, 78 (as cause of halzoun, at Liban).—King, 1836a, 95-101.—Kingsley, 1885, 191-194, figs. 168-174.—Klencke, 1844, 420 pp.—Kowal., 1902, 26, 8.—Kriwonogow, 1886.—[Kulmus, 1721, 596.]—Lamarck, 1801a, 333.—[Lamoureux, 1824a, 560, 561, 562, 563.]—Lander, 1904a, 10.—Laveran & R. Bl., 1895, 8-33, 186-188.—[Leeuwenhoek, 1715, 1-33, 14 figs.]—Leuck., 1879, 33; 1886, 25; 1892b, 798.—Looss, 1899, 557, 742; 1902m, 782; 1905, 110; 1907, Feb. 1.—Luehe, 1901, 167; 1902, 224; 1905, 334.—Marshall, J. T., (1883), 10 (= a parasite of Limnaea truncatula).—Marshall, W., 1887.—Martens, 1824.—Mojkowski, (1888a); 1888b, Mar., 118.—Moniez, 1896, 86, 90-114, 115, 118, 119, 121, 150, 158, figs. 19, 20, 22, 23.—Mueh., 1898, 10.—Mueller, O. F., 1774, 52-53; 1776; 1782.—Mueller, P. L., 1775, 42-43.—Neumann, 1888, 507-564, figs. 229-238; 1892, 504-528, figs. 271-281; 1892, 517-543, figs. 271-281.—[Nichols, 1755, 246-248.]—Nord., 1840, 618.—Odh., 1905, 338-339, 340, 344.—Olss., 1876, 13.—Otto, 1816, vii.—Pallas, 1760; 1768, 269-271; 1781, 79.—Parkes, 1891, 79.—Par., 1887, 489.—Perroncito, 1882, 273-276, figs. 115-116.—[Pecquet, 1668.]—Poir., 1883, 74.—Pratt, 1898, 357.—Rail., 1899, 345.—Rail. & Marotel, 1898, 34, 37.—[Redi, 1684, 133; 1729.]—Roger, 1901, 94, 95.—[Romberg, 1706, 69-70.]—Rozier, 1774.—Rud., 1793a, 28-29; 1802, 62-64 (cf. lanceolata); 1804, 165; 1805, 37-38, a. hominis, b. equi, c. tauri; 1809a, 350, 353; 1810a, 57 (pars syn. of Bothriocephalus solidus).—Ruysch, 1737, 23.—[Scheffer, 1726, 57.]—Schrunk, 1788, 17; 1803, 210.—Schwarze, 1885, 41.—Shaw, 1901, 1027.—Sieb., 1845, 223.—Simon, 1897, 222.—Simonds, (1862), 21.—Smith, Wm. A., 1863, 35-36, fig. 7.—Sons., 1878, 615 (epatica); 1884, 59, 61; 1889, 275; 1891, 254; 1896, 112-116; 1896, 4 pp., varieties of; 1896, 295, 302, 303, 315; 1897, 250, 251, 252.—Spengel, 1905, 270.—Steel, 1881, 204 (in cattle).—Stewart, 1898, 328-331, figs. 9-17.—Stieda, 1867, 52-59, pl. 2.—Stiles, 1896, 205; 1898a, 22, 29, 30, 31, 32, 33, 34, 35, 37, 38, 41, 42, 43, 45, 51, 52, 53, 55, 56, 57, 137, 138, 139, 140, 141, 142, 143, figs. 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17; 1901, 177; 1901, 180; 1901d; 1901e; 1902, 204; 1902, 220, 221, 222; 1903, 884.—Stiles & Hass., 1898a, 88, 89, 97.—Stoss., 1892, 7 (to Cladocœlium).—Sweiten [1758, 89].—[Thomson, 1855, 188.]—Turton, 1807.—Tyson, 1903, 3 ed., 1180 (to Dist.).—Verrill, 1870, 170, 176, 177, 178, 213, 214.—Veterinarian, 1879, v. 52, 738-741.—Walter, (1866), 63-64.—Ward, 1895, 246-252, pl. 1, figs. 1-13, 253 (in part of Dinwiddie, 1889, to Fasc. magna), 256 (syns. Planaria latiuscula Gœze, Dist. hep. Abildg., Fasc. humana Gmelin,

FASCIOLA—Continued.

F. lanceolata Rud., 1803, *Fasciolaria hep.*, *Distomata hominis* Taylor, *Dist. caviæ* Sons.; 1903, 704, 706; 1903, 863, 864, 865 (syns. *Dist. hep.* Retzius, *Fasc. humana* Gmelin, *Dist. caviæ* Sons., *Cladocœlium hep.*), 866 (syn. probably *Hexathyridium venarum*), 867, 870, 871.—[Wepfer, 1716.]—Wernicke, 1886, 304.—[Willius, 1674-1675.]—Ztschr. f. mikr. Fleischschau, Berl., 1880.—Zuern, 1882, 207, pl. 4, figs. 5-8.

——, *hepatica*, anatomy of: Jackson, 1888, 643-645, 649, 651, 652, 653.—Ramdohr, 1814, 128-131 (in sheep).—See also foregoing entries.

——, ——, bibliography of: Hass., 1894b, 407-417, 457-462.

——, ——, development of: Brown, 1882b, 624-630.—Rossouw, 1895, 578-579 (origin of).—Schubmann, 1905, 571-606, figs. 1-51; 1905, Oct. 10, 564-565; 1905, Oct. 18, 597.—Sons., 1884, 315; 1884, 76-77.—Thomas, 1881, Aug., 543-547; 1881, Sept., 629-633; 1881, Oct., 705-714; 1881, 740-741; 1881, Nov., 776-782; 1881, Dec., 847-853; 1881, v. 17, 1-29; 1882, Oct. 19, 606-608; 1882, v. 18, 439-455, figs. 1-6; 1882, Dec., 388-393; 1883, Mar., 180-189; 1883, May, 338-343; 1883, June, 404-409, figs. 1-6; 1883, July, 469-470 (and prevention); 1883, Aug., 550-557; 1883, Sept., 621-633; 1883, Oct., 681-690, figs. 1-20; 1883, v. 17, Oct., 270-286, figs. 1-18; 1883, v. 19 (37), 276-305, figs. 1-20; 1883, Nov., 344-352, fig. 19.—Veterinarian, Lond., 1880, May, 332-333; 1881, June, 390-392.—See also life cycle of.

——, ——, embryo of: Baillet, 1879a, 197-215, figs. 1-11; 1880a, 19 pp.

——, ——, geographic distribution of: Rail., 1895, 338-340 (var. in Senegal).—Rolleston, 1880b, 400-405.

——, ——, histology of: Harley, 1876a, 255-256, figs. 208-209.

——, ——, intermediate host of: Cobb, 1898c, 36-38, 2 figs.—Fielder, 1896a, 24-28, 139-140, 146-147, figs. 1-7.

——, ——, in various animals: [Frommann, 1688c, 252-259; 1755a, 291-294].—In cattle: Cocu, 1897a, 369-371 (heart); 1898b, 98 (heart).—Galli-Valerio, 1901c, 364.—[Hutcheon, 1893h, 347 (death).]—Mills, 1876.—Morot, 1890, 191-193 (erratic).—Rail., 1897, July 30, 369-371 (heart).—Rail. & Morot, 1885, 285 (lungs).—Ward, 1895, 332 (biliary ducts).—Horse: Adams, 1876, 764-765 (India).—Galli-Valerio, 1901c, 364.—Ward, 1895, 338 (biliary ducts).—Man: Ashford, King & Igaravidez, 1904, Dec. 1, 92 (Porto Rico).—Looss, 1905, 88.—Ward, 1895, 238, 246, 328 (biliary ducts).—Wilson, 1880, Nov., 413-417.—Sheep: Camper, 1762a, 304, pl. 4.—Dupuy, 1822a, 29-36.—Galli-Valerio, 1901c, 364.—Halsted, 1883a, 741-748, figs. 1-11.—[Hutcheon, 1889e, 235 (Capetown); 1892m, 141; 1893o, 403-404; 1893r, 425-426].—Morton, 1839, Nov., 735-738, fig. 1.—Rhodesian Agric. J., Cape Town, 1906, v. 3 (5), June, 529.—Ward, 1895, 238-246.—Miscellaneous: [Cadéac, 1885a (*Equus asinus*, female); 1885b (*Equus asinus*, female).]—Cobbald, 1858b, 167 (*Lepus cuniculus*).—Ward, 1895, 238 (man, cattle, sheep, goat, horse, ass, hog, rabbit, cat), 246 (stag, squirrel, elephant), 335 (*Ovis aries*: biliary ducts).

——, ——, life cycle of: Fagge & Pye Smith, 1902, 4 ed., 475 (syn. *Dist. hep.*).—Jackson, 1883a, 248-250.—Thomas, 1883, Jan., 99-133, pls. 2-3, figs. 1-26; 1883, v. 23, 8.—See also development of.

hepatica ægyptica (Looss, 1896), Stiles, 1898a, 23, 48, 49, 50, 139, 140, figs. 25-26.—Braun, 1903, 3 ed., 152 (in buffalo, cattle, sheep, goats); 1906, 157 (= *F. angusta* = *F. ægyptica*).—Looss, 1902m, 782.—Sons., 1896, 115; 1896, 295.

hepatica angusta Rail., 1895, 338-340 (in cattle; St. Louis, Senegal, Africa); 1895, 702.—R. Bl., 1895, 733 (= *F. gigantea*).—Braun, 1903, 3 ed., 151 (cattle, liver); 1906, 156, 158, fig. 89.—Gomy, 1897a, 376.—Looss, 1902m, 782.—Rail. & Gomy, 1899, 349.—Stiles, 1898a, 23, 48, 49, 137, 140, figs. 23, 24.—Sons., 1896, 2; 1896, 113, 115.—Veterinarius, 1898, 328.

hepatica apri Gmelin, 1790a, 3054 (in *Sus scrofa*; from Le Clerc, 1715a, 119).

hepatica boum Gmelin, 1790a, 3054 (in *Bos taurus*; Europe) (= *Planaria latiuscula* Gœze, 1782a. pro parte, renamed = *Fasc. hepatica*).

hepatica caviæ Sons., 1896, 112-116; 1896, 4 (in *Cavia*).—Stiles, 1898a, 48, 139.

hepatica cervi Gmelin, 1790a, 3054 (in *Cervus*).

hepatica equi Gmelin, 1790a, 3054 (in *Equus caballus*).

hepatica orata planu Buchholzii of Jærdens, 1802a, 64-66, pl. 7, figs. 13-14 (see *Dicrocœlium lanceatum*).

FASCIOLA—Continued.

- hepatica porcorum* Gmelin, 1790a, 3054 (in *Sus scrofa domestica*; Europe) (=Plan. latiuscula Goeze, 1782a, pro parte, renamed=F. hepatica).
- heterophyes* (Sieb.), 1852 (Moquin-Tandon, 1860.—R. Bl., 1888a, 625–627 (to Dist.).—Ward, 1895, 328 (in Homo)).
- hirundinis* Frelich, 1791, 75–76 (in *Thurmschwalbe*).—Baird, 1853 (syn. of *D. maculosum*).—Braun, 1901, 566; 1902b, 45, 46 (syn. of *Plagiorchis mac.*).—Dies., 1850a, 349 (syn. of *D. mac.*).—Linst., 1901, 197 (syn. of *D. mac.*).—Rud., 1809a, 374.
- humana* Gmelin, 1790a, 3053 (in Homo).—R. Bl., 1888a, 543 (syn. of *D. hepaticum*).—Braun, 1903, 3 ed., 147 (syn. of *F. hepatic.*); 1906, 150, fig. 83 (syn. of *F. hep.*).—Cobbold, 1866, 6.—Dunglison, 1893, 424.—Rud., 1809a, 353.—Stiles, 1898a, 29.—Ward, 1895, 246 (syn. of *F. hepatic.*), 328 (in Homo), 332 (in *Bos taurus*), 335 (in *Ovis aries*), 338 (in *Equus caballus*); 1903, 865 (syn. of *F. hepatic.*).
- inflera* Rud., 1802a, 82–83 (in *Cyprinus jesus*); 1809a, 395.—Dies., 1850a, 365 (to Dist.) (in *Leuciscus jesus*: Apr., Greifswald).
- intestinalis* Linn., 1758a, 649 (in *intestinis piscium*); 1761, 505.—Abildg., 1790, 34.—Baird, 1853 (syn. of *Ligula simplicissima*).—Barbut, 1783, 15, pl. 2, fig. 2.—Blumenbach, 1825, 242.—Bosc, 1802a, v. 1, 277 (syn. of *Lig. abdominalis*).—Braun, 1893a, 883; 1900a, 1642.—Bremser, 1819.—Dav., 1877, 260.—Dies., 1850a, 580 (syn. of *Lig. diagramma*).—Goeze, 1782a, 41, 183 (=a "Gattung" of Fasc. Goeze).—Herbst, 1787a, 32, 41 (syn. of *Lig. piscium*).—Luehe, 1905, 334.—Montin, 1763a, 113–118; 1766a, 122–127 (in Homo) [evidently a tapeworm, det. as *F. i.* Linn.].—Nord., 1840, 590 (syn. of *Lig. cingulum*).—Pallas, 1781, 95.—Rauh, 1779, 11.—Rud., 1810a, 20 (syn. of *Lig. cingulum*), 25 (syn. of *Lig. mergorum*).—Steenstrup, 1857, 186–195 (in *Stichling*); 1858, 298–312; 1859, Dec., 475–485.—Wegelin, 1779, 8.
- intestinalis* Gueldenstädt, (?1791a), 115 (in *Sorex moschatus*).—Dies., 1850a, 617 (syn. of *Cephalocotyleum mygales moschatæ* Rud.).—Rud., 1810a, 24 (= *Ligula soricis moschati*).
- jacksonii* Cobbold, 1869, 48–49, in Indian elephant; 1870, 47–49; 1873, 13; 1875, 733–743; 1879b, 393, 394, 395, 396, 397; 1882, 223–258, pls. 23, 24.—Braun, 1892a, 567, 650, 674, 710 (*jacksoni*); 1893a, 875, 910.—Fitz, 1876a, 513–518; 1876b, 513–518; 1876c, 854 (*jacksoni*).—Jackson, 1847.———Linst., 1878, —.—Looss, 1899b (to *Fasciolopsis*).—Sons., 1889, 275 (*jacksoni*); 1896, 114, 115 (*jacksoni*).—Stiles, 1895, 144–147, pl. 6, 213–215; 1898a, 29.—Veterinarian, Lond., 1876, 854 (*jacksoni*).
- jesis* Gmelin, 1790a, 3058 (in *Cyprinus jesus intest.*; Europe).—Bosc, 1802a, v. 1, 275.—Dies., 1850a, 365 (syn. of *D. inflexum* Rud.).—Rud., 1793, 30; 1809a, 372, 395.
- lactea* Mueller, 1774, 61–62 (in *rivo sub foliis nymphææ ac in Palustris frequens*).—Schrank, 1803, 167 (to Plan.).—Johnston, 1865, 10.
- lagna* Braun, 1788 (Gmelin, 1790a, 3057 (in *Perca fluviatilis*)).—Baird, 1853a, 57 (syn. of *Dist. nodulosum* Zed.).—Bosc, 1802a, v. 1, 273.—Rud., 1809a, 411 (syn. of *D. nod.*).
- lanceolata* Rud., 1803a, 24–25 (nec Schrank, 1790) (in Homo; Europe); 1809a, 353 (syn. of *Dist. hepaticum*).—R. Bl., 1888a, 543 (syn. of *D. hep.*), 602 (syn. of *D. lanceolatum*).—Braun, 1903, 3 ed., 157, 166 (to *Dicrocoelium*).—Dies., 1850a, 333.—Dunglison, 1893, 424 (*lanceolatum*).—Stiles, 1898a, 55.—Stiles & Hass., 1898a, 87 (=lanceatum, type of *Dicrocoelium*).—Ward, 1895, 246, 328 (in Homo), 332 (in *Bos taurus*), 335 (in *Ovis aries*).
- lanceolata* Schrank, 1790, 123 (in *Cyprinus brama*); 1803, 213–214.—Dies., 1850a, 341 (syn. of *D. globiporum*).
- lanceolata* (*bramæ*) [Schrank, 1790, 123] of Rud., 1809a, 364 (syn. of *Dist. globiporum*; see *lanceolata* 1790).
- laureata* (Zed., 1800) Rud., 1802a, 86–87; 1809a, 413 (to Dist.).—Blainv., 1824a, 518 (type of *lobostome*).—Dies., 1850a, 380 (to Dist.).—Lamarck, 1816, 184.—Nord., 1840, 621 (includes *F. farionis*).
- linearis* Rud., 1793a, 29 (in *Phasianus gallus*; Greifswald, Oct.); 1802a, 85–86; 1809a, 414.—Dies., 1850a, 380 (to Dist.).—Hass., 1896a, 2, 3 (to *Crossodera*).
- linearis* Mueller, 1774, 67–68 (in *foveis palustribus sylvarum*).—Schrank, 1803, 172–173 (to Plan.).

FASCIOLA—Continued.

- linearis longa* Linn., —.—Pallas, 1781a, 95 (in *Cyprinus variis*).
lineata Mueller, 1774, 60-61 (in *littore maris Balthici*).
loliginis Gmelin, 1790a, 3059 [or Fabricius, —, 328] (includes *F. barbata* Linn., probably this renamed).—Baird, 1853a, 115 (= *Tetrabothriorhynchus barbatus*).—Dies., 1850a, 573 (syn. of *Tetraboth. migratorius*).—Rud., 1810a, 385.
longicollis Abildg. [1788], 34, pl. 151, fig. A, 1-2 (in *Coluber natrix*).—Dies., 1850a, 348 (syn. of *D. naja*).—Olfers, 1816, 46.—Rud., 1819a, 377 (syn. of *D. naja*).
longicollis Rud., 1809a, 380 (syn. of *Dist. tereticolle*), based on Bloch, 1782a, 6 (syn. *Fasc. lucii* in *Esox lucius*).—Ben., 1858a, 1861a, 100 (to *D. ter.*).—Dies., 1850a, 358 (syn. of *D. ter.*).—Nord., 1840, 619 (syn. *D. ter.*, *F. lucii*).—Lamarck, 1816, 183.—Sramek, 1901, 105.
longicollis Frœlich, 1791, 73-75, pl. 3, figs. 9-11 (in *Cyprinus carpio*).—Dies., 1850a, 341 (syn. of *Dist. globiporum*).—Harz, 1881c, 11 (to *Dist.*).—Looss, 1894a, 41 (syn. of *D. gl.*), 49 (e. p. syn. of *D. isoporum*); 1902m, 763 (and *D. gl.*).—Rud., 1809a, 365 (syn. of *D. gl.*); 1814a, 103.—Stiles, 1901, 168.
longicollis (carpionis), see *longicollis* (Frœlich).
lucii Mueller, 1776, 224 (in *Lucius, esoph. and stomach*); 1779a, 67-68, pl. 30, fig. 7, in *Esox lucius*; 1780, 136; 1784, 115, pl. 78, figs. 6-8; —, vol. 1, 33-34, pl. 30, fig. 7 (ventric. of *Esox lucius*); —, vol. 2, 52-33, pl. 78, figs. 6-8; 1780, 203.—Baird, 1853a, 53 (= *D. tereticolle*).—Ben., 1858a, 1861a, 100 (syn. of *D. ter.*).—Bloch, 1779a, 537, pl. 14, figs. 1-4; 1782a, 6-7.—Bosc, 1802a, v. 1, 274.—Bruguière, 1791a, pl. 79, figs. 20-23.—Crep., 1837, 316.—Dies., 1850a, 358 (syn. of *D. ter.*).—Gmelin, 1790a, 3058.—Harz, 1881c, 5 (to *Dist.*).—Herbst, 1787a, 32, pl. 4, figs. 1-4.—Jurine, 1823a, 145-153, figs. 1-5; 1824a, 489-497, figs. 1-5; 1830a, 784-785.—Knoch, 1862, 19.—Looss, 1894a, 5 (syn. of *D. ter.*).—Nord., 1840, 619 (syn. of *F. longicollis*).—Rud., 1809a, 379.—Schränk, 1788, 18.—Sramek, 1901, 105.
lucioperca Mueller, 1776, 223; 1779a, 64, pl. 30, fig. 2; 1788, vol. 1, 32, fig. 30, fig. 2 (int. *Perca lucioperca*).—Baird, 1853a, 56 (= *D. nodulosum*).—Bosc, 1802a, v. 1, 273.—Bruguière, 1791a, pl. 79, fig. 13.—Dies., 1850a, 380 (syn. of *D. nod.*).—Gmelin, 1790a, 3057.—Herbst, 1787a, 33.—Looss, 1894a, 33 (syn. of *D. nod.*).—Nord., 1840, 621 (syn. of *F. nodulosa*).—Rud., 1809a, 410.—Schränk, 1788, 18; 1790, 123.—Sramek, 1901, 106 (syn. of *D. nod.*).—Stiles & Hass., 1898a, 84, 85 (syn. of *D. nod.*).
lucipetum (Rud., 1819) Blainv., 1828a, 585.
macrostoma Rud., 1803a, 26-27 (in *Nachtigall*); 1809a, 386.—Blainv., 1828, 585.—Dies., 1850a, 361 (to *Dist.*).—Poche, 1907, 125.—Stiles, 1901, 192.—Stiles & Hass., 1898a, 95, 96 (type of *Urogonimus*).
maculosa Rud., 1802a, 67-68 (*F. hirundinis* Frœlich renamed) (in *Hirundo apus*, *H. rustica*, *H. urbica*); 1809a, 374.—Braun, 1902b, 46 (to *Plagiorchis*).—Dies., 1850a, 349 (to *Dist.*).
magna (Bassi, 1875) Stiles, 1894c, 172-178, 225-243, pls. 1-11, figs. 4-7, a-g; 1895l, 277-280; 1894w, 91-94; 1896i, 202; 1898a, 22, 27, 29, 42, 49, 51, 52, 53, 54, 55, 110, 141, 142, figs. 28-35; 1902, 222.—Bossuat, 1902, v. 6 (2), 192.—Looss, 1899b, 557; 1902m, 783.—Pratt, 1898, 357, 365.—Rail., 1893a, 356.—Salmon & Stiles, 1901, 454.—Smith, F. C., 1881, 14 (*Dist. crassum*).—Sons., 1889, 275 (syn. *Dist. magnum*); 1896, 114, 115; 1896, 303.—Ward, 1895, 238 (in cattle), 252-253, 254-255, pl. 2, figs. 14-16 (in cattle and deer) (includes: *D. hepaticum* p. p., *F. hepatica* p. p., *F. carnosa*, *F. americana*, *D. texanicum*), 332 (in *Bos taurus*), 335 (in *Ovis aries*), 338 (in *Equus caballus*); 1903, 866 (includes: *F. americana*, *F. carnosa*, *Cladocœlium giganteum* p. p., *D. crassum* p. p., *D. texanicum*), 867.—Also reported for *Boselaphus tragocamelus*, *Cervus canadensis*, *C. dama*, *C. elaphus*, *C. virginianus*, *C. unicolor*.
maimonis Blainv., 1828a, 586, 2 figs. (in *Simia maimon*).—Dies., 1850a, 374 (syn. of *D. laciniatum*).
marmorosa Mueller, 1774, 71 (in *fossis aquaticis rara*).—Schränk, 1803, 175 (to *Plan.*).
melis Schränk, 1788, 17 (in *Dachs, Meles*), based on Goeze, 1782a, 176, pl. 14, figs. 9-10; 1803, 214.—Bosc, 1802a, v. 1, 268.—Dies., 1850a, 381 (syn. of *D. trigonocephalum*).—Gmelin, 1790a, 3053.—Rud., 1793a, 26-27; 1809a, 415.
mesostoma Rud., 1803a, 28 (in *Krametsvogel*); 1809a, 388 to *Dist.*—Braun, 1902b, 126.—Dies., 1850a, 361.

FASCIOLA—Continued.

- militaris* Rud., 1803a, 30–31 (in *Scolopax arquata*); 1809a, 421 (to Dist.).—Ben., 1858a, 1861a, 86 (to Dist.).—Dies., 1850a, 384 (to Dist.).
- milvi* Gmelin, 1790a, 3054 (in *Milvus*).—Bosc., 1802a, v. 1, 269.—Dies., 1850a, 385 (syn. of *D. echinocephalum*).—Rud., 1809a, 429 (syn. of *D. falconis milvi*).
- muris hepatica* Roederer, 1762, 537–539 (*Mus musculus*; Germany).—Braun, 1894.—Luehe, 1905, 146 (syn. of *Cysticercus fasciolaris*).—Stiles, 1906, 43.—Stiles & Stevenson, 1905a, 10.—Tschudi, 1837, 67.
- mutabilis* Schrank, 1803, 210–211.
- nana* Rud., 1802b, 68–69 (in *Scolopax gallinula*; Greifswald, July); 1809a, 377, to Dist.—Dies., 1850a, 350 (to Dist.).—Braun, 1902b, 47 (to *Plagiorchis*).
- nigra* Mueller, 1774, 54 (in rivo; free form).—Herbst, 1787a, 36.—Johnston, 1865, 9.—Schrank, 1803, 165 (to Plan.).
- nodulosa* Frœlich, 1791, 76–80 (includes *F. percae cernuae* Mueller (in *Perca cernua*, *P. fluviatilis*).—Dies., 1850a, 380 (to Dist.).—Looss, 1894a, 33 (to Dist.).—Nord., 1840, 621 (includes *F. luciopercae*, *F. percae cernuae*).—Lamarck, 1816, 184.—Rud., 1809a, 411.—Schrank, 1803, 213.—Type of *Crossodera* 1845 and *Bunodera* 1896.
- obscura* Mueller, 1774, 65 (in *piscinis*).—Schrank, 1803, 171–172 (to Plan.).
- ocreata* Rud., 1802b, 79–81 (*F. halecis* Gmelin, renamed) (in *Clupea harengus*); 1809a, 329, 398 (to Dist.).—Dies., 1850a, 372 (to Dist.).—Mont., 1891, 15 (to *Apoblema*); 1891, 496, 499.—Type of *Pronopyge* 1899.
- ocreata* Gœze, 1782a, 182, pl. 15, figs. 6–7 (in *Maulwurf*).—Dies., 1850a, 326 (to Monost.) (in *Talpa europæa*).—Nord., 1840, 624 (to Monost.).—Rud., 1809a, 329 (to Monost.).
- ocularis* Moquin-Tandon, 1860, 347 (includes *Dist. ophthalmobium*, *Dicrocoelium oculi humani*); 1861; 1862.—R. Bl., 1888a, 630.—Stiles, 1902, 29.—Ward, 1895, 328 (in *Homo*).
- oculis* Moquin-Tandon (*Hulme's*), 1861, 375, for *F. ocularis*.—Stiles, 1902, 28, 29.
- ovata* Rud., 1803a, 25–26 (in *Corvus frugilegus*); 1809a, 357 (to Dist.).—Braun, 1901, 13; 1902b, 69, 77 (p. p. syn. of *Prosthogonimus cuneatus*; pp. syn. of *P. cuneatus*).—Dies., 1850a, 335 (to Dist.).—Hass., 1896a, 2, 3 (to *Cephalogonimus*).—Looss, 1899b, 629 (type of *Prymnoprion*).
- percae* Gmelin, 1790a, 3057 (= *F. percae cernuae* renamed) (in *Perca cernua*).—Bosc., 1802a, v. 1, 273.—Baird, 1853a, 56 (syn. of *Dist. nodulosum*).—Bruguère, 1791a, pl. 79, fig. 14.—Rud., 1809a, 411 (syn. of *D. nod.*).
- percae cernuae* Mueller, 1776, 224; 1779a, 65, pl. 30, fig. 1 [sic. = fig. 3]; 1788, v. 1, 32, pl. 30, fig. 3 (in *Perca cernua*).—Dies., 1850a, 380 (syn. of *D. nodulosum*).—Herbst, 1787a, 33.—Looss, 1894a, 33 (syn. of *D. nod.*).—Nord., 1840, 621 (syn. of *F. nod.*).—Rud., 1809a, 410.—Schrank, 1788, 18.
- percina* Schrank, 1790, 123 (in *Perca asper*, *P. vulgaris*); 1803, 213.—Dies., 1850a, 380 (syn. of *D. nodulosum*).—Looss, 1894a, 33 (syn. of *D. nod.*).—Rud., 1809a, 411.
- picta* Rud., 1802, 64–65 (*F. vespertilionis* renamed) (in *Fledermaus*); 1809a, 427 (renamed *lima*).—Dies., 1850a, 387 (syn. of *D. lima*).—Kolenati, 1857, 12.
- platellæ* Bosc, 1802a, v. 1, 273 (see *platessæ*).
- platessæ* Mueller, 1784, 114, pl. 78, figs. 1–5; 1788, v. 2, 52, pl. 78, figs. 1–5.—Bruguère, 1791a, 79, figs. 26–27.—Cobbold, 1858b, 160.—Dies., 1850a, 352 (syn. of *D. areolatum*).—Gmelin, 1790a, 3057.—Rud., 1809a, 401 (renamed *D. areol.*).
- polymorpha* Rud., 1802b, 70–72 (*F. anguillæ* Gmelin, renamed) (in *Aal*); 1809a, 363 to Dist.—Dies., 1850a, 340 (to Dist.).
- punctata* Mueller, 1774, 57 (in *pratis inundatis primovere*, free form).—Pallas, 1774, 23, pl. 1, fig. 14 a b (in aq., Belgii).—Schrank, 1803, 166 (to Plan.).
- punctum* (Zed., 1800) Blainv., 1828a, 586.
- pusilla* (Braun, 1790) Gmelin, 1790a, 3055.—Bosc, 1802a, v. 1, 269.—Dies., 1850a, 360, to Dist.—Rud., 1802b, 75–76; 1809a, 385 (to Dist.).
- putorii* Gmelin, 1790a, 3053 (in *Mustela putorius*).—Bosc, 1802a, v. 1, 268.—Dies., 1850a, 381 (syn. of *Dist. trigonocephalum*).—Rud., 1793a, 25–26; 1809a, 415.—Schrank, 1788, 17.—Stoss, 1892, 29 (syn. of *Echinost. trigonocephalum*).
- quadrangularis* Pallas, 1774, 20–21, pl. 1, figs. 12a–c (in fossis; *Hagæ comitus*).

FASCIOLA—Continued.

- radiata* Mueller, 1774, 66 (in aquis sylvestribus, rara).
- ranæ* Gmelin, 1790a, 3055 (for Plan. subclavata Gœze, 1782a, 178, which includes Fasc. subclavata, ore sessili Pallas pro parte; t. h. [based on Gœze] frog, Rana, intestine; Europe).—Bosc, 1802a, v. 1, 270.—Rud., 1809a, 348 (syn. of Amphist. subclavatum).
- ranæ* Frœlich, 1791, 69–73, pl. 3, figs. 7–8 (in Rana temporaria L.).—Baird, 1853a, 52 (syn. of Dist. clavigerum).—Braun, 1892a, 768.—Dies., 1850a, 352 (syn. of D. clavigerum).—Looss, 1894a, 84, 85, 88 (syn. of D. endolobum); 1905, 21, 22 (syn. D. endol.).—Olfers, 1816, 45.—Rud., 1809a, 348 (syn. of Amphist. subclavatum).
- reticulata* (Wright, 1879) Looss, 1899b, 557.
- revoluta* Frœlich, 1802, 58–60, pl. 2, figs. 6–7 (in Anas boschas; Europe).—Looss, 1899b, 680 (syn. of Echinost. echinatum).—Rud., 1814a, 102 (sub Dist. echinatum).
- rosea* Mueller, 1774, 58 (in sinu Dröbachiensis).
- rostrata* Mueller, 1774, 65–66 (in paludosis, primo vere annorum).—Johnston, 1865, 15.—Schrank, 1803, 170–171 (to Plan.).
- rubra* Mueller, 1774, 59 (Fucorum frequens).—To Plan. in 1776.
- saccata* Gœze, 1782a, 221, based on Sack-Egel of Merrem, 1781, 169, pl. 1, figs. 3–7.—Braun, 1894a, 4.—Raum, 1883, 20.—Stiles, 1906, 43.—Stiles & Stevenson, 1905a, 10 (syn. of Cysticercus fasciolaris).—Tschudi, 1837, 67 (syn. of Cyst. fasc.).—Zed., 1803a, 406 (syn. of Cyst. tæniæformis).
- salamandræ* Frœlich, 1789, 119–121, pl. 4, figs. 8–10 (in black salamander, Salamandra atra).—Bosc, 1802a, v. 1, 270.—Dies., 1850a, 356 (syn. of Dist. crassicolle).—Gmelin, 1790a, 3055.—Rud., 1809a, 378.—Stiles, 1901, 197.
- salmonis* Mueller of Gœze, 1782a, 173.—Luehe, 1901, 399 (? syn. of Hemiurus crenatus (Rud.) Luehe), 401.—Odhn., 1905, 353.
- scabra* Mueller, 1784a, 31–32, pl. 51, figs. 1–8, in Gadus barbatus; —, v. 2, 14, pl. 51, figs. 1–8 (in ventric. Gadus barbatus).—Bosc, 1802a, v. 1, 272.—Bruguière, 1791a, pl. 79, figs. 28–32, v–z.—Dies., 1850a, 393.—Gmelin, 1790a, 3056.—Knoch, 1894a, 3.—Mont., 1891, 507.—Odhn., 1905, 349 (=F. serrulata Mueller), 353.—Rud., 1809a, 406 (to Dist.).
- scombræ pelamidis* Tilesius, in Rud., 1809a, 391 (syn. of Dist. clavatum), 437.—Buttel-Reepen, 1902, 166.—Cobbald, 1879b, 461.—Dies., 1850a, 366 (syn. of D. clav.).
- scorpii* Mueller, 1776, 223; 1779a, 64, pl. 30, fig. 1; 1788, v. 1, 32, pl. 30, fig. 1 (in Cottus scorpius, Blennius viviparus, int.).—Bosc, 1802a, v. 1, 273.—Bruguière, 1791a, 79, fig. 12.—Dies., 1850a, 366 (syn. of D. granulum).—Gmelin, 1790a, 3057.—Herbst, 1787a, 33.—Lamarck, 1816, 183–184.—Nord., 1840, 620 (syn. D. gran.).—Rud., 1809a, 394 (syn. of D. gran.).—Schrank, 1788, 18.
- serrulata* Mueller, 1776, see Gœze, 1782a, 173.—Luehe, 1901, 399 (? syn. of Hemiurus crenatus (Rud.) Luehe), 400, 401.—Odhn., 1905, 349 (=F. scabra Mueller), 353.
- solæiformis* Blainv., 1828a, 585 (for solæiformis Rud., 1809).
- squali grisei* Risso, —, 38, see Dies., 1850a, 347 (syn. of D. veliporum).
- stagnalis* Mueller, 1774, 53 (in stagnis; free form).—To Plan. in 1776.
- strigata* Mueller, 1774, 66–67 (in aquis paludosis).—To Plan. in 1776.
- strigis* (Schrank, 1788) Gmelin, 1790a, 3055.—Baird, 1853a, 47 (= Holost. macrocephalum).—Bosc, 1802a, v. 1, 269.—Dies., 1850a, 312 (syn. of Holost. variable).—Linst., 1905, 191.—Nord., 1840, 626 (syn. of Amphist. macrocephalum).—Rud., 1809a, 340 (syn. of Amphist. macro.).—Type of Strigea, Amphist., Holost.
- strigis stridulæ* Braun, in Rud., 1809a, 347.
- subclavata* (Gœze, 1782) Schrank, 1788a, 19; 1803, 211–212.—Dies., 1850a, 318 (of Schrank to Diplodiscus), 368 (of Pallas syn. of Dist. cylindraceum).—Looss, 1894a, 64 (Pallas e. p. syn. of Dist. cygnoides); 1905, 21, 22.—Rud., 1809a, 348 (of Schrank syn. of Amphist. subclavatum), 393 (of Pallas syn. of Dist. cylindraceum).
- subclavata ore sessile* Pallas, 1760 or 1761, 271 (polynomial), in lungs of Rana and liver of Hungarian sheep.

FASCIOLA—Continued.

- tentaculata* Mueller, 1774, 63-64 (in aquis palustribus).—To Plan.
- tereticollis* Rud., 1802b, 74-75 (F. lucii Mueller, renamed); 1809a, 380.—Ben., 1858a, 1861a, 100 (to Dist.).—[Blainv., 1828a, 585.]—Dies., 1850a, 358.—Looss, 1894a, 5; 1899b, 570 (type of Azygia).—Sramek, 1901, 105 (to Dist.).
- terrestris* Mueller, 1774, 68-69 (in asseribus muscisque humidis).—Claus, 1885a, 262 (to Rhynchodesmus, Geoplanidae).—Metchnikov, 1866b, 433-447; 1866, 22 pp. (? syn. of Geodesmus bilineatus).
- tetragona* Mueller, 1774, 69 (in stagno ac foveis aquæ purioris nec vulgaris).—To Plan. in 1776.
- tinæ* Modeer, 1790, 127 (in Cyprinus tinca).—Dies., 1850a, 395 (syn. of D. perlatum).—Looss, 1894a, 24 (syn. of D. perl.).—Rud., 1809a, 365 (syn. of D. globiporum).—Stiles & Hass., 1898a, 92 (syn. of D. perlatum).
- torva* Mueller, 1774, 62-63 (in aquis).—Johnston, 1865a, 11.—Schränk, 1803, 167-169 (to Plan.).
- trachea* Montagu, 1811a, 194-198, pl. 7, fig. 4 (in poultry).—Hass., 1896a, 3. 6 (syn. of Syngamus trachealis); 1896b, 1, 2.—Rail., 1893a, 453 (syn. of Syng. trach.).
- transversalis* Rud., 1802a, 69 (in Cobitis fossilis); 1809a, 362; 1819a, 95 (Greifswald and Berlin).—Dies., 1850a, 339.—Odhn., 1901, 505.
- tremellaris* Mueller, 1774, 72 (in mari Balthico, Hafniam alluente).—Johnston, 1865a, 6.—To Plan. in 1776.
- trigonocephala* Rud., 1802b, 87-88 (F. melis Schränk, renamed) (in Schweinigel).—Dies., 1850a, 382.—Lamarck, 1816, 184.—Nord., 1840, 621-622 (includes D. echinatum, Echinost. echinatum, E. ferox, F. echinata, F. ferox, Plan. putorii).—Stoss., 1892, 29 (to Echinost.).
- truttæ* Bosc, 1802a, v. 1, 274 (for truttæ, Frœlich).
- truncata* Mueller, 1806, 35, pl. 151, fig. B, 1-3 (in Perca lucioperca).—Rud., 1814a, 105.
- truttæ* (intestinalis) Rœderer, 1762, June 19, 537 (in forelle).—Bosc, 1802a, v. 1, 274.—Dies., 1850a, 583 (syn. of Ligula nodosa).—Luehe, 1904, 146; 1905, 334 (=Echinorhynchus).—Rud., 1809a, 262 (? syn. of Echinorhynchus fusiformis); 1810a, 18 (syn. of Lig. nod.).—Schränk, 1803, 209.
- truttæ* Frœlich, 1789, 126, 127, pl. 4, figs. 16-17 (in Salmo trutta: Europe).—Dies., 1850a, 380 (syn. of Dist. laureatum).—Gmelin, 1790a, 3058.—Rud., 1809a, 413 (syn. of D. laur.); 1814a, 102 (syn. of D. farionis Frœlich).
- umbla* Fabricius, 1780a, 329; 1794, 26-29, pl. 3, figs. 6-8 D (in Salmo umbla: Greenland).—Bosc, 1802a, v. 1, 274.—Dies., 1850a, 343 (syn. of Dist. seriale).—Gmelin, 1790a, 3058.—Herbst, 1787a, 36.—Rud., 1809a, 368, 369 (renamed Dist. seriale, in Salmo alpinus).
- uncinata* Dies., 1850a, 412 (syn. of Polyst. integerrimum) lapsus for uncinulata.—Stoss., 1898, 10.
- uncinulata* (Braun, 1790) Gmelin, 1790a, 3056.—Bosc, 1802a, v. 1, 270.—Nord., 1840, 594 (syn. of Linguatula integerrima).—Rud., 1809a, 452 (syn. of Polyst. integerrimum).
- upupæ* Schränk, 1790, 123 (in Upupa epops, rectum); 1803, 211.—Dies., 1850a, 351 (syn. of Dist. involutum).—Rud., 1809a, 377 (syn. of D. involutum).
- varica* Mueller, 1784a, 93-94, pl. 72, figs. 8-11 (in Salmo salar); 1788, v. 2, 43, pl. 72, figs. 8-11.—Bosc, 1802a, v. 1, 273.—Bruguère, 1791a, pl. 80, figs. 5-8.—Dies., 1850a, 368 (to Dist.).—Gmelin, 1790a, 3057.—Lamarck, 1816, 184.—Levin., 1881a, 54 (to Dist.).—Nord., 1840, 620 (to Dist.).—Odhn., 1905, 360 (to Derogenes).—Rud., 1802b, 81; 1809a, 396 (to Dist.).
- venarum* (Treutler, 1793) Schränk, 1803, 210.
- ventricosa* Pallas, 1774, 17-18, pl. 1, figs. 9-10 (host not given; Amboyna).—Baird, 1853a, 59 (to Hirudinella).—Buttel-Reepen, 1900a, 586; 1902, 166, 172, pl. 6, fig. 2.—Cobbold, 1879b, 459, 460.—Darr, 1902, 664, 665, 666.—Dies., 1859c, 431.—Herbst, 1787a, 36.
- verrucosa* Frœlich, 1789, 112-115, pl. 4, figs. 5-9 (in weidender Gänse) Ben., 1858a, 1861a, 78 (to Monost.).—Dies., 1839e, 234; 1850a, 411 (syn. of Notocotyle triseriale).—Hass., 1896a, 3 (to Notocotyle).—Mont., 1892, 26.—Nord., 1840, 602 (syn. of Nocotylus triserialis).—Odhn., 1905, 366 (type of Catatropis).—Rail., 1893a, 340 (to Notocotyle).—Rud., 1809a, 331.—Schränk, 1803, 209.

FASCIOLA—Continued.

respertilionis Mueller, 1784a, 95-96, pl. 72, figs. 12-16; 1788b, v. 2, 43-44, pl. 72, figs. 12-16 (in *Vespertilio auritus*).—Bosc, 1802a, v. 1, 268-269.—Braun, 1900, 387.—Bruguère, 1791a, pl. 80, figs. 9-11.—Dies., 1850a, 387 (syn. of *D. lima*).—Gmelin, 1790a, 3053.—Kolenati, 1857, 12.—Lamouroux, 1824a, 563.—Rud., 1793a, 27-28; 1809a, 427.—Schränk, 1788, 18.

viridis Mueller, 1774, 59-60 (in *radicibus fucorum*; Greenland).

vulpis Gmelin, 1790a, 3053 (in *Canis vulpes*; Europe).—Brand., 1888a, 9, 60 (syn. *Hemist. alatum* Dies.).—Dies., 1850a, 308 (syn. of *Hemist. alatum*).—Rud., 1793a, 30-32; 1809a, 402 (syn. of *D. alatum*).

FASCIOLARIA Rafinesque, 1815, 151, fam. name, includes *Anthostoma*, *Caryophyllæus* Zed., *Fascinia*, *Fasciola* L., *Hexathyridia* Treutler, *Linguatula* L., *Lingula* L., *Polystoma* Zed., *Unicola* Raf.

FASCIOLARIA Encyclop. Metrop. or Universal Dict. of Knowledge, Lond., v. 18, 141 (as generic name) [not *Fasciolaria* Lamarck, 1799, mollusk].—Dies., 1850a, 577 (misprint for *Fasciola*).—Stiles & Hass., 1898a, 89 (syn. of *Fasciola*).

fimbriata (Gœze, 1782) Dies., 1850a, 577 (misprint for *Fasciola*) (syn. of *Caryophyllæus mutabilis*).—Sramek, 1901, 114 (syn. of *C. mut.*).

hepatica (Linn., 1758) Encycl. Metropolitana, 1845, v. 18, 141 (type of *Fasc.*).—Stiles, 1898a, 29.—Ward, 1895, 246.

ranae (Gmelin, 1790) Nord., 1840, 627 (syn. of *Amphist. subclavatum* (for *Fasciola*)).

FASCIOLIASIS. BIBLIOGRAPHY OF: Huber, 1890f, 77-79.

——, GEOGRAPHIC DISTRIBUTION: Biermer, 1863a, 381-395 (Switzerland); 1895a, 253 (Switzerland).—Chardin, 1876a, 277-314 (Orleansville).

——, in various animals: Burke, 1886b, 470; 1887a, 47.—Hass., 1894a, 162-167 (epizootics).

——, in cattle: Billhuber, 1791a (and sheep).—Lucet, 1890b, 548-549 (lungs); 1890c, 549-550 (spleen).—Stiles, 1902b, 64-69, figs. 93-98, 126-134, figs. 99-109, 204-209, figs. 110-113, 312-319, figs. 114-118, 373-379, figs. 119-122, 558-559, figs. 123-124.

——, HEPATIC IN MAN: Askanazy, 1900b, 491, 496 (Bostroem's 1883a case); 1901, 75 (chronic choleportitis and fibrinous periportitis).—Biermer, 1863a, 381-395 (Switzerland); 1865a, 253 (Switzerland).—R. Bl., 1891p, 604-606, 616 [see correction in R. Bl., 1894g].—Bossuat, 1902 v. 6 (2), 187.—Bostroem, 1883a, 557-577, 1 fig.—Chabert, 1852a, 173-174 [a tapeworm]; 1852c, 174; 1852d, 195-196.—Chester, 1887a, 359-360 (must have been contracted in Dorsetshire, England).—Duffek, 1902a, 772-775; 1902b, 826; 1903a, 30; 1903, Aug. 15, 843.—García Sola, 1884a, 129-135, fig. 5.—Huber, 1896, 574-575 (22 cases in 100 years).—Humble & Lush, 1881a, 75-76 (England).—Leichtenstern, 1885b, 502.—Prunac, 1878, 1147-1149; 1879, v. 27, 99-109; 1879, July 27, 429-434.—Sagarra, 1890, v. 14, 505-512; 1891, Apr. 18, 510-511.—Staff., 1905, Apr. 11, 694 (Canada).—Wyss, 1868, v. 9, 172-177, pl. 3, figs. 1-2.

——, HEPATIC, SHEEP: Bass, 1893a, 93.—Cristini, (1845a).—[Dowling, 1894a, 232].—[Dun, 1880a, 550-556; 1881a, 141-204.].—[Dupuy, 1838a, 511-523.].—Flemming, 1881a, 87-93; (1881b).—[Fonssagrives, 1868a, 299-315, figs. 1-2.].—[Friedberger, 1880a.].—[Frommann, 1688b, 245-252.].—General, (1883a), 86-87.—Halse, 1887a, 62 pp.; 1887b, 65; 1888a, 147-149.—Hutcheon, 1895h, 350-354, figs. 1-4.—King, 1836a, 95-101.—Morton, 1839, 735-738.—Waldinger, 1818.—Wernicke, 1888, 673 (Buenos Ayres).

——, PATHOLOGY AND LOCATION: Bossuat, 1902, 187.

——, symptoms: Khouri, 1904, 78, 79, 80, 81 (halzoun).

——, treatment: Bennett, 1876a, 677-680 (salt and potash: Australia).—[Hellier, 1895k, 635.].—[Hutcheon, 1891m, 86-87; 1891n, 140-141, sheep]; 1893b, 23 (creolin); 1897b, 100 (sheep); [1897g, 142-146].—Syme, 1895, Dec. 26, 680-681.

FASCIOLIDE Rail., 1895, 338.—R. Bl., 1895, 729-730.—Braun, 1900b, 387-391 (of Chiroptera); 1900c, 24-32 (Clinost.); 1900d, 27-29 (Rhopalias); 1900f, 387-391 (of Chiroptera); 1900g, 250; 1901i, 55-58 (nomenclature); 1902a, 120 (nomenclature); 1902b, 1-162, figs. 1-99 (of birds); 1902c, 442-444; 1903, 3, ed., 147, 445; 1905, 59-60.—Darr, 1902a, 644-701, pls. 33-35, figs. 1-34; 1902b, 735-736; 1902, 58 pp.; 1905, July, 55-56.—Looss, 1901, 91; 1901, 191, 196; 1902m,

FASCIOLIDÆ—Continued.

838.—Luehe, 1901, 486–488.—MacCallum, 1899, 707.—Pratt, 1902, 887, 893 (key) (includes Anisocelinae, Bunoderinae, Centrocestinae, Cotylogoniminae, Echinostominae, Fasciolinae, Haplometrinae, Omphalometrinae, Opisthorchiinae, Philophthalminae, Plagiorchiinae, Psilostominae, Reniferinae, Anaporrhutinae, Brachyyceliinae, Cephalogoniminae, Dicrocoeliinae, Clinostominae, Gorgoderinae, Harmostominae, Microphallinae, Pleurogenetinae, Hermiurinae, Syncœlinae, Telorchinae, Urogoniminae, Zoogoniminae).—Roger, 1901, 94.—Shipley, 1905, v. 6, 4.—Stiles, 1898a, 22, 27, 28; 1901, 191, 192, 195; 1904i, 10–11, 12–45, figs. (of man).—Stiles & Hass., 1898a, 81–89 (type Fasciola; superspecific inventory).—Ward, 1903, 863, 864, 865.

FASCIOLINÆ Stiles & Hass., 1898a, 86, 90, 95, 96 (subf. of Fasciolidae).—Looss, 1899b, 543, 556, 560, 561, 626; 1901, 196; 1902m, 839.—Luehe, 1900, 562; 1901, 486; 1901, 175.—Odh., 1905, 339, 344, 346, 347.—Pratt, 1902, 887 (includes Campula, Fasc., Fasciolopsis; related genera: Paragonimus, Pleorchis).—Stiles, 1898a, 22, 28.—Ward, 1903, 867.

FASCIOLOPIS Odhn., 1902, 581, misprint for Fasciolopsis.

buski (R. Bl., 1888) Odhn., 1902, 581.

FASCIOLOPSIS Looss, 1899b, Dec., 557, 561 (tld. *buskii*), includes *crassa* Busk, *jacksoni* Cobbold.—Braun, 1903, 3. ed., 153; 1906, 155.—Odh., 1905, 339, 344, 346.—Pratt, 1902, 887, 893.—Stiles, 1904i, 39–40.—Ward, 1903, 866.

1902: Fasciolopsis Odhn., 1902, 581, misprint.

buski (R. Bl., 1888) Odhn., 1902, 573–581, figs. 1–3. See *buskii*.

buskii (Lankester, 1857) Stiles, 1901, 1542; 1904i, 41–42, figs. 63–66 (in *Homo*).—Braun, 1903, 3. ed., 153–154, fig. 99 (in *Homo*); 1906, 159, fig. 90 (*buski*) (syns. *Dist. buski* and *D. crassum*).—Conyngham, 1904 (IX, 17), 663.—Looss, 1905, 110, fig. 16; 1907, Feb. 1, 123 (*buski*) (from Hongkong).—Moore & Ferril, 1905a, Sept. 30, 1002–1003, figs. 1–7; 1905b, 8 pp., figs. 1–7 (in U. S.).—Ward, 1903, 864, 867; 1903, 704.

crassa (Cobbold, 1860) Looss, 1899b, 557.

jacksoni (Cobbold, 1869) Looss, 1899b, 557.

rathouisi (Poir., 1887) Ward, 1903, 864, 867; 1903, 704.—Looss, 1905, 111, fig. 17.—Stiles, 1904i, 42–43, fig. 67.

FELLODISTOMUM Staff., 1904, May 3, 486 (m. *incisum*).—Odh., 1905, 310.

incisum (Rud., 1809) Staff., 1904, 486 (in *Anarrhichas lupus*).

FESTUCARIA Schrank, 1788, Gattung 9, 16–17 (type by elimination *anatis*, see Luehe, 1901; also type by first species rule); 1803, 185.—Blainv., 1824a, 512 (“genre adopté de Schrank pour le *Distoma trigonocephalum*, qui paraît n’être qu’une espèce de monostome”), 518 (“ce sont les monostomes cylindriques et à bouche terminale de M. Rudolphi”).—Brand., 1888a, 8.—Braun, 1893a, 884, 894.—Cuv., 1817, 40.—Dies., 1850a, 307 (syn. of *Hemist.*), 312 (syn. of *Holost.*), 319 (syn. of *Monost.*), 400 (of *Zed.*, syn. of *Amphist.*), 411 (syn. of *Notocotyle*).—Hémont, 1827, 9.—Knoch, 1862, 30.—Lamoureux, 1822a, 194.—Looss, 1901, 193; 1902m, 746, 755.—Luehe, 1901p, 174, 175 (type *anatis*).—Rafinesque, 1815, 151 (renamed *Monostomeus*).—Rud., 1801a, 50, 54; 1809a, 21.

alata (Gœze, 1782) Schrank, 1790, 118; 1803, 208–209.—Brand., 1888a, 60 (to *Hemist.*).—Dies., 1850a, 308 (to *Hemist.*).—Lamoureux, 1822a, 194.—Rud., 1809a, 402, 403 (to *Dist.*).

anatis Schrank, 1788, 16, based on Gœze, 1782a, 174, pl. 13, figs. 8–11 (in *Enten*).—Dies., 1850a, 383 (syn. of *D. echinatum*).—Luehe, 1901p, 175 (type of *Festucaria* by elimination), species unidentifiable, possibly *Echinost. echinatum*.—Rud., 1809a, 418.

boschadis Schrank, 1790, 122–123 (in *Anas boschas sylvestris*, A. b. dom.); 1796, 332, pl. 5, figs. 16–17; 1803, 207–208.—Dies., 1850a, 383 (syn. of *D. echinatum*).—Looss, 1899b, 680.—Rud., 1809a, 418, 419.

caryophyllacea Rud., 1810a, 353 (misprint for *caryophyllina*).

caryophyllina Rud., 1802a, 66–67, pl. 1, fig. 3 (in *Gasterosteus aculeatus*); 1809a, 325.—Dies., 1850a, 328 (to *Monost.*).—Rail., 1893, 339 (to *Monost.*).

cerri Zed., (1790), 65–74, pl. 3, figs. 8–11 (in *Hirsch*).—Dies., 1836, 246; 1850a, 401 (syn. of *Amphist. conicum*).—Fischder., 1901, 368 (to *Paramphist.*); 1902, 11 (to *Paramphist.* as type); 1903h, 504, 506 (of the *Hirsch. Vormagen*).—Looss, 1896b, 32 (to *Amphist.*).—Rud., 1809a, 350.—Stiles, 1898a, 64.—Ward, 1895, 256 (syn. of *Amphist. conicum*), 332 (in *Bos taurus*), 335 (in *Ovis aries*).

FESTUCARIA—Continued.

cyprinacea Schrank, 1790, 122 (in *Cyprinus barbus*); 1803, 207.—Dies., 1850a, 329 (syn. of *Monost. cochleariforme*).—Nord., 1840, 624 (syn. of *Monost. cochl.*).—Rud., 1809a, 326 (renamed *M. cochl.*), 410.

lensis (Gescheidt, 1833) Moquin-Tandon, 1860, 349; 1861, 375; 1862, —.—R. Bl., 1888a, 542, (to *Monost.*).—Stiles, 1902s, 25, 28.—Ward, 1895, 328.

oti Rud., 1819a, 354 (*F. otidis* Frölich, 1802, renamed).

otidis Frölich, 1802, 53–54 (changed to *oti* Rud., 1819, 354) (in *Strix otus*).—Rud., 1814a, 99–100.—Baird, 1853a, 47 (= *Holost. macrocephalum* Blainv.).

pedata Schrank, (1769), 335–340 (in *Anas querquedula*); 1803, 208 (includes *F. anatis* Schrank, 1788).—Baird, 1853a, 45 (= *Monost. verrucosum*).—Ben., 1858a, 1861a, 78 (syn. of *Monost. verr.*).—Dies., 1839, 234; 1850a, 411 (syn. of *Notocotyle triseriale*).—Odhm., 1905, 366 (syn. of *Catartopis verrucosa*).—Rud., 1809a, 331.

pileata Rud., 1802a, 65–66 (in *Sterna hirundo*); 1809a, 338 (to *Monost.*).—Dies., 1850a, 314 (to *Holost.*).

strigis Schrank, 1788, 16–17 based on Gæze, 1782a, 174, pl. 14, figs. 4–6 (in *Weideneule*).—Baird, 1853a, 47 (= *Holost. macrocephalum*).—Dies., 1850a, 312 (syn. of *Holost. variabile* Nitzsch).—Frölich, 1802, 51–52.—Linst., 1905, 191.—Luehe, 1901, 175.—Rud., 1809a, 340 (syn. of *Amphist. macrocephalum*); 1814a, 99.—Type of *Strigea*, 1790.

ventricosa Rud., 1803, 20–21 (in *Nachtigall*); 1809a, 335 (to *Monost.*); 1819a, 86 (in *Motacilla lusciniæ*; Greifswald, May).—Dies., 1850a, 328 (to *Monost.*).

FESTUCARIOCREATA Rud., 1802, 67 (apparently lapsus for *Festucaria ocreata*).

FLUKES (vernacular name for Trematoda, esp. for *Fasciola hepatica*) Cobbold, 1883, 514–515.—Dugmore, 1895a, 491.—Feuerheerd, 1896a, 272–273 (life history).—Hahn & Lefevre, 1884a, 515–549 (douves).—Johnson's New Univ. Cycl., N. Y., 1876, v. 2, 176.—Kuech., 1890, 186 (mode of alimentation).—Tyson, 1903, 3. ed., 1180–1181 (of liver).—Veterinarian, Lond., 1880, June, 397.

FRIDERICIANELLA Brand., 1894a, 305–311 (m. *ovicola*).—Maclaren, 1904, 583.—Mont., 1903, 336 (subf. *Calceostominæ*); 1905, 65.—St.-Remy, 1898, 524, 564.

ovicola Brand., 1894a, 303–310, pl. 19, figs. 1–4 (in *Arius commersonii* Lac.; Rio Grande do Sul, Brazil).—Bettend., 1897a, 16; 1897, 320.—Goto, 1899, 290.—Maclaren, 1904, 597.—St.-Remy, 1898, 565, fig. 5.

FURCOCERCA Lamarck, 1815, 446–448 (type?).—Braun, 1892a, 767; 1893a, 884.—Nitzsch, 1827, 66.—Pag., 1857, 5.—Bory de St. Vincent, 1823a, 355; 1825a, 83–84.

catellina (Mueller, 1786) Lamarck, 1815, 448.

catellus (Mueller, 1773) Lamarck, 1815, 448.

crumena (Mueller, 1786) Lamarck, 1815, 447–448.

luna (Mueller, 1786) Lamarck, 1815, 448.

lupus (Mueller, 1773) Lamarck, 1815, 448, based on Mueller, —, pl. 20, figs. 14–17.

orbis (Mueller, 1786) Lamarck, 1815, 448.

podura (Mueller, 1773) Lamarck, 1815, 447, based on Mueller, pl. 19, figs. 1–5.—Bory de St. Vincent, 1825a, 84 (syn. *Cerc. podura* Mueller).

serrata Bory de St. Vincent, 1825a, 84 (syns. *Furcularia furcata* Lamarck, *Vorticella furcata* Mueller) (in infusion de foin).

trilobata Bory de St. Vincent, 1825a, 84 (in infusions d'écorce de chêne).

viridis (Mueller, 1774) Lamarck, 1815, 447.

[cercarie Wagener], see Dies., 1858d, 276 (*furcocerce cercarie* Wagener, syn. of *Bucephalopsis aculeatus* Dies.).

FURCULARIA

furcata (Mueller, 1786) Lamarck, 1816, 39.—Bory de St. Vincent, 1825a, 84 (syn. *Furcocerca serrata*).

GALACTOSOMUM Looss, 1899b, 671 (m. *lacteam*) subf. *Haplorchiniæ*; 1902m, 512.—Pratt, 1902, 890, 910.

lacteam (Jägers., 1896) Looss [1899, 671]; 1902m, 512 (type).

GANEO Klein, 1905, June 9, 72 (m. *glottoides*); ganeo, der Prasser, Schwelger.

glottoides Klein, 1905, June 9, 72–78, pl. 5, figs. 6–8 (in *Rana hexadactyla*, intestine); 1905, 14–20, figs. 6–8.

GASTERODISCINÆ Mont.

GASTEROSTOMA Mont., 1888a, 84, see *Gasterostomum*.

GASTEROSTOMATA Odhn., 1905, 295-296.

GASTEROSTOMATIDÆ Gamb., 1896a, 73.

GASTEROSTOMIDÆ Braun, 1883a, 59; 1893a, 887, 895, 900, 912; 1895b, 136.—Hoyle, 1890, 539.—Jackson, 1888, 654, includes *Gasterost.*, (*Bucephalus*, larval form).—Looss, 1899b, 541, 543; 1901, 196.—Luehe, 1901, 488.—Mont., 1888, 14, 52, 92, 105.—Odhn., 1905, 296.—Par., 1887, 335.—Pratt, 1902, 890 (*Gasterost.*).—Schneidemuehl, 1896, 295.—Sieb., —.

GASTEROSTOMIDES R. Bl., 1888a, 541 (embraced in *Distomiens*).

GASTEROSTOMINÆ Mont., 1892, Oct. 7, 214 (subf. of *Distomidæ*).—Braun, 1893a, 890.—Looss, 1899b, 541.—Mueh., 1898, 30.—Stoss., 1898, 59.

GASTEROSTOMUM Sieb., 1848, 112, 129, 138 (m. *fimbriatum*); 1854, 20.—Ben., 1870c, 142.—Bettend., 1897a, 15; 1897, 319.—Biehringer, 1888a, 231, 232, 233.—Brand., 1891d, 12; 1892, 507.—Braun, 1890a, 520; 1890b, 127; 1892a, 568, 577, 583, 586, 589, 603, 605, 608, 614, 629, 635, 336, 640, 641, 644, 659, 660, 671, 672, 673, 682, 683, 696, 700, 704, 708, 709, 711, 713, 715, 718, 721, 726, 727, 732, 736, 757, 760, 773, 806, 807; 1893a, 823, 834, 867, 872, 879, 886, 887, 890, 895, 899, 913, 916, 918; 1895b, 121, 125, 136; 1899, 3.—Carus, 1863, 479.—Dies., 1858e, 313, 360-361 (mentions only *fimbriatum*); 1859c, 436-437.—Fil., 1855b, 25.—Gamb., 1896, 73.—Hoyle, 1890, 539 (8 sp. in fish, larva *Bucephalus*), 540.—Jackson, 1888, 642, 644, 648, 651 (= *Bucephalus*), 654.—Kath., 1894a, 138.—Lacaze Duthiers, 1854a, 295, 301.—Leuck., 1863, 474, 477, 503, 524.—Lint., 1905, 327 (*Bucephalus haimeanus*).—Looss, 1893b, 819; 1894a, 105, 158, 179, 191, 202, 203.—Mont., 1888a, 7, 10, 11, 12, 15, 33, 34, 38, 43, 46, 60, 77, 79, 84 (*Gasterost.*), 92, 105; 1891, 110; 1892, Oct. 7, 214 (g. of *Gasterostominae*); 1893, 3, 9, 28, 95, 147.—Moul., 1856a, 12, 175, 178.—Odhn., 1905, 296 (type *fimbriatum*), 297, 307.—Poche, 1907, 125.—Pratt, 1900, 647; 1902, 890, 891, 908.—Schneidemuehl, 1896, 295.—Spengel, 1905, 258.—Ssinitzin, 1906, 688.—Stoss., 1898, 59.—Tennent, 1906, 639 (in *Cyclopterus lumpus*).—Wagener, 1852, 557-567, figs. 2-3.—Wallenstedt, 1847, 7.—Wolf, 1903, 615, 617.—Ziegler, 1905, 36.—Cf. *Bucephalus*.

arcuatum Lint., 1900, 277, 278, 297-298, pl. 41, figs 85-90 (in *Sarda sarda*; Woods Hole); 1901, 416 (in *Sarda sarda*, *Carcharinus obscurus*), 427, 446, 447; 1905, 329, 335, 363, 365, fig. 235 (in *Caranx hippos*, *Scomberomorus regalis*).—Tennent, 1906, 640 (in *Car. obs.*).

armatum Mol., 1859, 291 (t. h. Conger conger; Padua); 1859, 820; 1861, 224-226, pl. 4, figs. 4-5, pl. 6, figs. 1, 3.—Braun, 1892a, 752; 1893a, 913.—Dies., 1859c, 436.—Levin., 1881a, 64, 76-78 (in *Cottus scorpius*; *Egedesminde*) [see below].—Mont., 1893, 95.—Odhn., 1905, 305 (of Mol., 1861, syn. of *Prosorhynchus crucibulum* Rud.), 307; 1905, 297, 298 (syn. of *Pros. squamatus*).—Staff., 1904, May 3, 488 (in *Acanthocottus scorpius*, *Brosmius brosme*, *Hemitripterus americanus*, *Hippoglossus hippoglossus*).—Stoss., 1885, 161; 1898, 60.—Tennent, 1906, 639, 640, 669, 679 (in *Conger conger*).—Ziegler, 1883, 538 to (*Rhipidocotyle?*), 539 (syn. of *G. crucibulum* Gerv. & Ben.), 548 (in *Conger conger*).

armatum of Olss., 1868, 56, pl. 5, figs. 107-108, and of Levin., 1881, 76, pl. 3, fig. 4.—Odhn., 1905, 297, 298 (syn. of *Prosorhynchus squamatus*).

baculum Lint., 1905, 327, 329, 335, 362, figs. 233, 234 (in *Scomberomorus maculatus*; Beaufort, North Carolina), based on *Gasterost. sp.* Lint., 1901, 447, pl. 34, figs. 369-372.

blanchardi Stoss., 1898, 61 (in *Labrax lupus*; Trieste).

clupeæ Ben., 1870, 67 (in *Clupea sprattus*; Belgium).—Braun, 1893a, 913.—Tennent, 1906, 639 (in *Cl. spr.*).—Ziegler, 1883, 539 (in *Cl. spr.*).

crucibulum (Rud., 1819) Gerv. & Ben., 1859b, 207; 1870, 82, pl. 3, fig. 18.—Braun, 1892a, 784, 789; 1893a, 913.—Dies., 1859c, 425 (to *Monost.*), 437.—Lint., 1878a, 272 (in *Conger cassinii*).—Mont., 1893, 95.—Odhn., 1905, 305 (of Ben., 1870, syn. of *Prosorhynchus aculeatus*; of (Rud.) Olss., syn. of *Pros. crucibulum*.—Stoss., 1892, 66; 1898, 60-61 (in *Conger vulgaris*; Trieste).—Tennent, 1906, 639, 640, 679.—Ziegler, 1883, 539, 548 (syn. of *G. armatum* Mol.), 563.

fimbriatum Mol., 1859, 819-821, pl. 2, fig. 1 (t. h. *Anguilla vulgaris*; Padua).—Braun, 1892a, 575, 595, 599, 673, 709, 712, 717, 718, 784; 1893a, 866, 871, 913.—Buttel-Reepen, 1902, 215.—Cobbald, 1879b, 462.—Gamb., 1896, 72.—Mad-dox, 1867, 97.

GASTEROSTOMUM—Continued.

- fimbriatum* Sieb., 1848, v. 1, 129 (in *Perca fluviatilis*, *Lucioperca*; [Europe]) as possible adult of *Bucephalus polymorphus*.—Badcock, 1875a, 145 (in *Perca fluviatilis*, *Lucioperca*, carp.: larva *Bucephalus polymorphus*.—Biehinger, 1888a, 230.—Brand., 1891d, 7.—Braun, 1892a, 575, 595, 599, 673, 709, 712, 717, 718, 784; 1893a, 866, 871, 913.—Dies., 1858e, 361 (in *Lucioperca sandra*, *Perca fluviatilis*, *Esox lucius*); 1859c, 435, 436 (cf. *Dist. campanula* Duj.).—Giard, 1874e, 487.—Haarlem, —, v. 9, 89; —, v. 13, 103, pl. 24, figs. 1–7.—Hausmann, 1896a, 392 (in *Luc. sandra*); 1897b, 4, 6, 20, 22, 34–35, pl. 1, figs. 6–8 (in *Luc. sandra*).—Juel, 1889, 12, 36.—Kowal., 1894, 4; 1894, 221.—Linst., 1878a, 208 (in *Perca fluviatilis*); 1878, 230.—Looss, 1885b, 11, 14; 1892a, 122; 1894a, 203, 205, 206, 207.—Mont., 1888a, 34.—Mueh., 1898, 30.—Odhn., 1905, 296 (type of genus), 300, 301, 303.—Olss., 1893, 12.—Par., 1887, 336.—Poche, 1907, 125.—Stoss., 1883, 119; 1898, 59–60 (in *Anguilla vulgaris*; Trieste).—Tennent, 1906, 637, 638, 641, 643, 665, 666, 677, 678, 682 (in *Perca*, *Lucioperca*).—Wagener, 1852, 565–567; 1857, 45, pl. 24, figs. 1–7; 1858, 250; 1860, 165 (syn. *Dist. campanula*).—Ziegler, 1883, 491; 1883, 537, 538, 539, 541–567, pl. 33, figs. 16, 18–22, 27, 28.—Also reported for *Abramis alburnus*, *Blicca bjoerkna*, *Blicopsis abramo-rutilus*, *Gobio fluviatilis*, *Leuciscus erythrophthalmus*, *Lota vulgaris*, *Squalius leuciscus*.
- gadorum* (Rathke, 1799) Linst., 1878a, 238 (in *Gadus morrhua*; *G. virens*).—Braun, 1893a, 871.
- galcatum* (Rud., 1819) Stoss., 1898, 62 (in *Lichia amia*; Trieste).
- gorgon* Lint., 1905, 327, 335, 364, figs. 240–242 (in *Seriola lalandi*; Beaufort, North Carolina).
- graciliscens* (Rud., 1819) Wagener, 1852, 563, pl. 16, fig. 3.—Braun, 1892a, 673; 1893a, 866, 880, 913.—Cobbold, 1872b, 92; 1879b, 52, 462, fig. 78.—Dies., 1858e, 361 (to *Rhipidocotyle*) (in *Lophius piscatorius*).—Gamb., 1896, 72.—Hausmann, 1897b, 34.—Linst., 1878a, 223 (to *Rhipidocotyle*).—Lint., 1905, 327, 335, 353, 357, 360, 365, 370, 402, 410, 414, figs. 230–232, 236–239 (in *Caranx hippos*, *Menidia menidia*, *Opsanus tau*, *Paralichthys albiguttus*, *Pomatomus saltatrix*, *Spheroides maculatus*, *Stolephorus brownii*, *Tylosurus marinus*).—Maddox, 1867, 97.—Mol., 1859, 821 (*Loph. pisc.*; Padua).—Odhn., 1905, 296, 302, 303.—Sons., 1891, 258 (in *Loph. pisc.*).—Stoss., 1890, 44; 1898, 61–62 (in *Loph. pisc.*; Trieste).—Tennent, 1906, 637, 638, 640, 664, 666, 679, 682 (larva = *Bucephalus haimeanus*), pl. 40, fig. 40, pl. 41, figs. 44–50, 52, 53, pl. 42, figs. 54–58 (in *Loph. pisc.*).—Ziegler, 1883, 538, 539.—Also reported for *Gadus aeglefinus*, *G. minutus*, *Esox*, *Molva*.
- illense* Ziegler, 1883, 543 (in *Esox lucius*, *Leuciscus erythrophthalmus*; Strassburg).—Hausmann, 1896a, 392.
- laciniatum* Mol., 1859, 821 [apparently lapsus for *fimbriatum*].—Par., 1894, 167 (in *Anguilla vulgaris*; Padova, Trieste, Cagliari).
- minimum* Wagener, 1852, 558–563, fig. 2 (t. h. *Trigla microlepidota*).—Braun, 1889a, 356; 1892a, 599, 673; 1893a, 880, 913.—Dies., 1858e, 361, 362 (to *Rhipidocotyle*) (in *Tr. micr.*).—Odhn., 1905, 296.—Tennent, 1906, 637, 638 (in *Tr. micr.*).—Ziegler, 1883, 538, 548 (in *Tr. micr.*).
- minimum* Stoss., 1887, 96, pl. 10, fig. 41 (in *Labrax lupus*; Trieste); 1898, 61.—Hausmann, 1897b, 34.
- ovatum* Lint., 1900a, 269, 297 (in *Lobotes surinamensis*; Woods Hole, Mass.); 1901, 416, 457.—Tennent, 1906, 640, 679 (in *Lob. sur.*).
- pusillum* Staff., 1904, May 3, 494–495 (in *Stizostedion vitreum*; Canada).
- species* Lint., 1901, 447. See *G. baculum*.
- species* Lint., 1900, 269, 298, pl. 41, fig. 9.
- species* Ben., 1870, 51.
- tergestinum* Stoss., 1883, 119–120, pl. 2, fig. 5 (in *Gobius niger*; G. jozo; Trieste); 1898, 61; 1901, 91–92 (3–4).—Braun, 1892a, 642; 1893a, 874, 913.—Mont., 1888, 14; 1893, 95.
- trigla* Ben., 1870, 30, pl. 3, fig. 15 (in *Trigla hirundo*; Belgium).—Braun, 1893a, 913.—Tennent, 1906, 639, 679 (in *Tr. gurnardus*).—Ziegler, 1883, 539 (in *Tr. gurn.*).
- vipera* Ben., 1870, 26, pl. 3, fig. 17 (in *Trachinus vipera*; Belgium).—Braun, 1892a, 568; 1893a, 913.—Tennent, 1906, 639, 640 (in *Tr. vip.* Cuv.).—Ziegler, 1883, 539 (in *Tr. vip.*).
- viva* Ben., 1870, 25 (in *Trachinus draco*; Belgium).—Braun, 1893a, 913.—Odhn., 1905, 296.—Tennent, 1906, 639 (in *Tr. dr.*).—Ziegler, 1883, 539 (in *Tr. dr. L.*).

GASTROCOTYLE Ben. & Hesse, 1863; 1864, 96, 117-118 (m. trachuri).—Braun, 1890a, 414, 498, 511, 517, 523, 540, 541, 546; 1893a, 890.—Cerf., 1895h, 918; 1896, 514; 1899a, 391.—Cunningham, 1887a, 279.—Gamb., 1896, 73.—Hoyle, 1890, 539.—Mont., 1888a, 8, 11, 13, 66, 86, 89, 101; 1892, Oct. 7, 213 (gen. of Microcotylinae); 1903, 336 (subf. Axiniinae).—Pratt, 1900, 646, 653, 654, fig. 42.—Tasch., 1879, 69; 1879, 257-258.—Will.-Suhm, 1870, 9, 11.

trachuri Ben. & Hesse, 1863, 118; 1864, 118, pl. 13, figs. 1-8 (in *Caranx trachurus*).—Braun, 1890a, 407, 414, 541, 549 (in *Car. tr.*; Atlantic Ocean, Mittelmeer), 550.—Par., 1894, 595.—Par. & Perugia, 1890, 8.—Pratt, 1900, 657, fig. 42.—Tasch., 1879, 258 (in *Car. tr.*).—Will.-Suhm, 1870, 10.

GASTRODISCINÆ Mont., 1892, Oct. 7, 214 (subf. of Amphistomidae).—Braun, 1893a, 890.—Looss, 1899b, 541.

GASTRODISCUS Leuck., in Cobbold, 1877e, 233-239 (m. sonsinoi); 1877f, 326.—Braun, 1892a, 569, 581, 603, 614, 645, 669, 677, 682, 683, 688, 696, 699, 705, 715, 716; 1893a, 879, 886, 890, 892, 895, 904, 906, 918; 1895b, 136; 1903, 3 ed., 146.—Cobbold, 1877f, 326.—Couzin, 1885a, 426.—Fischder., 1901, 374; 1902a, 7, 46; 1903h, 488, 489 (m. polymastos) (in horses; Egypt).—Gamb., 1896a, 73.—Hoyle, 1890, 539.—Jackson, 1888, 642, 644, 654.—Looss, 1894, 24; 1895, 11; 1896b, 13, 14, 18, 151, 173, 178, 184, 188; 1899b, 541, 770; 1902m, 440, 442, 638, 676.—Mont., 1888a, 8, 12, 15, 26, 27, 34, 35, 41, 42, 52, 53, 54, 56, 57, 91, 103; 1892, Oct. 7, 214 (gen. of Gastrodiscinae).—Piana & Stazzini, 1900, 523.—Poir., 1883, 79.—Pratt, 1902, 887, 892.—Schneidemuehl, 1896, 295 (Gastrodiskus).—Shipley, 1905, v. 6 (1), 4, 8.—Sons., 1895, Aug.-Sept., 179, 180, 181, 183, 184, 185, 186, 1 pl., figs. 1-7.—Ward, 1903, 865 (in horses and cattle in Egypt; one (*G. hominis*) in man).

1883: *Gasterodiscus* Ziegler, 1883, 545.

1896: *Gastrodiskus* Schneidemuehl, 1896, 295.

1898: *Gastrodiseus* Kowal., 1898h, 158, misprint.

ægyptiacus (Cobbold, 1876) Rail., 1893, 379 (syns. Hemist. sp. Sons., 1876; Diplost. ægyptiacum Cobbold, 1876; Cotylegaster cochleariforme Sieb., 1877; *G. sonsinoi* Cobbold, 1877; *G. polymastos* Lkt., 1880).—Bettend., 1897a, 38; 1897, 342.—Brand., 1898a, 205 (13).—Fischder., 1902a, 46 (syn. of *G. polymastos* Leuck); 1903h, 494, 497.—Gronkowski, 1902a, 514, 520 (7, 13).—Kowal., 1898h, 158 (55) (*Gastrodiseus*).—Looss, 1896, 13-32, 149, 177-185, pl. 1, figs. 4-8, pl. 2, figs. 9-15, pl. 11, fig. 115, pl. 12, figs. 122-124, pl. 13, figs. 135-139 (syns. *G. polymastos*, *G. sonsinoi*, Hemist. sp., Diplost. ægyptiacum); 1907, Feb. 1, 134.—Moore, 1898, July 15, 531; 1897, 183.—Sons., 1895, 180, 181, 183, 184, 187, fig. 3; 1896, 294, 298, 309, 310.—Ward, 1895, 338 (in *Equus caballus*).—Also reported for *Equus asinus*, *E. mulus*.

hominis (Lewis & McConnell, 1876) Sons., 1896, 298.—Braun, 1903, 3 ed., 146-147, fig. 91; 1906, 149, fig. 82 (syn. Amphist. hominis).—Conyngham, 1904, IX, 17, 663.—Fischder., 1901, 374; 1902a, 46-47 (in *Homo*: India).—Looss, 1905, 110.—Shipley, 1905, v. 6 (1), 4 (thinks *Equus* is probably normal host).—Stephens, 1903, Feb., 7-12, figs. 1-4.—Ward, 1903, 704; 1903, 864 (in man), 865.

polymastos Leuck., 1880 (in *Equus caballus*; Egypt).—Brand., 1898a, 205, 214 (13, 23).—Braun, 1892a, 568, 580, 591, 593, 602, 605, 607, 608, 638, 640, 645, 646, 649, 654, 657, 661, 662, 663, 688, 703, 717, 733; 1893a, 874, 906; 1893d, 466.—Collin, 1891a, 86 (syn. of *G. sonsinoi*).—Fischder., 1901, 374; 1902a, 46 (syns. Diplost. ægyptiacum Cobbold, *G. ægyptiacus* Looss, *G. sonsinoi* Cobbold) (in *Equus caballus*, *E. mulus*, *E. zebra*).—Gronkowski, 1902a, 514 (7).—Lejtenyi, 1880a, 125-146 (anatomy), pls. 1-3; 1881a, 22 pp., 3 pls.—Lingard, 1905, 50.—Looss, 1885a, 392, 397 (*Gasterodiscus*); 1885b, 5, 10 (*Gasterodiscus*); 1894a, 146, 237; 1896b, 13 (syn. of *G. ægyptiacus*).—Mont., 1888a, 15, 26, 60.—Rail., 1887, 406-408 (in *Sénégale*), 494.—Richard, 1896.—Schneidemuehl, 1896, 303 (*Gastrodiskus polymastus*).—Sons., 1895, 124 (syn. of *G. sonsinoi*), 179.—Stephens, 1906, 9.—Ward, 1895, 338 (see *G. ægyptiacus* in *Equus caballus*).—Ziegler, 1883, 545 (*Gasterodiscus*).—Zuern, 1882, 222.

secundus Looss, 1907, Feb. 1, 134-136, figs. 3-4 (in mules; Assam).

sonsinoi Cobbold, 1877e, 233-239, 1 pl., 1 fig. (in *Equus*; Egypt), syn. Diplost. ægyptiacum (changed to *G. sonsinoi* Cobbold 1879b, 38, 359, fig. 62).—R. Bl., 1888a, 636.—Braun, 1893a, 906 (*sonsinoi*); 1893b, 186 (*sonsinoi*); 1906, 149.—Collin, 1891a, 86-88 (in zebra; Kataui Mbuga, Ostafrika).—Fischder., 1902a, 46 (*sonsinoi*) (syn. of *G. polymastos*); 1903h, 488 (*sonsinoi*).—Girard, 1880a, lxix-lxx (*sonsinoi*).—Lejtenyi, 1881a, 2 (*sonsinoi*).—Lingard,

GASTRODISCUS—Continued.

1905, 50 (syn. *G. polymastos*).—Looss, 1896b, 13 (syn. of *G. aegyptiacus*).—Mégnin, 1880, Aug. 15, 782–784, figs. 1–2 (in horse); 1881, v. 2, 250–252, figs. 2.—Moore, 1897b, 167; 1897a, 183–184 (sonsinoi); 1897c; 1898a, 531.—Poir., 1883, 74 (sonsinoi).—Sons., 1895, 124 (syn. *G. polymastos*).—Theobald, 1900, 50.—Ward, 1895, 338 (in *Equus caballus*).

sonsinoi Girard, 1880a, lxviii, for *sonsinoi*.

sonsinoi Poir., 1883, 74, for *sonsinoi*.

sonsinoi Cobbold, 1879b, 359, 463, fig. 62, for *sonsinoi*.

GASTRODISEUS Kowal., 1898h, 158 (55), for *Gastrodiscus*.

aegyptiacus (Cobbold, 1876) Kowal., 1898h, 158 (55).

GASTRODISKUS Schneidemuehl, 1896, 295, 303, for *Gastrodiscus*.

polymastus Schneidemuehl, 1896, 303, for *polymastos*.

GASTROTHYLAX Poir., 1883, 76–79; *γαστήρ*, stomach; *ῥυλάζ*, pocket, pouch; [type crumenifer].—Brand., 1891d, 17; 1898a, 193–225, pls. 8–9; 1898, 33 pp.—Braun, 1892a, 576, 663, 696, 699, 715, 720, 721, 739; 1893a, 879, 886, 890, 892, 895, 904, 907, 918; 1893d, 466; 1892, 49.—Darr, 1902, 651.—Fischder., 1901, 370; 1902a, 7, 26–27 (type crumenifer); 1903h, 488, 489, 491, 493, 496, 497, 498, 556 (diagnosis), 557 (type crumenifer), 557–591.—Gamb., 1896a, 73.—Gronkowski, 1902a, 515 (8).—Hoyle, 1890, 539.—Looss, 1894a, 146, 175; 1894, 17, 22, 24; 1896b, 5, 7, 8, 9, 31, 32, 171, 173, 176, 177, 178; 1898a, 459; 1899b, 541; 1902m, 638, 676.—Mont., 1888a, 7, 9, 12, 15, 52, 91, 103; 1892, Oct. 7, 214 (gen. of Amphistominae) (*Gastrotylax*); 1893, 27.—Pratt, 1902, 887, 892.—Shipley, 1905, v. 6 (1), 8.—Sons., 1895, 184, 185, 186.—Ssinitzin, 1906, 688.—Stiles, 1898a, 24.

1892: *Gastrotylax* Mont., 1892, 7 Oct., 214, misprint.

aegyptiacus Looss, 1898a, 459, apparently lapsus for *gregarius*.

cobboldi Fischder., 1901, 372 (for *cobboldii*); 1902a, 31, 32, 33 (in *Palonia frontalis*, Java; *Bos kerabau*, Ceylon; *B. taurus*, China); 1903h, 542, 575, 579–583, figs. M, 63–66 (from Ceylon in *Bos kerabau*, from China in *Bos taurus*), 585, 586, 587, 588, 589, 591; 1904, 459, 463.

cobboldii Poir., 1883, 77–79, pl. 2, fig. 3 (in *Palonia frontalis*; Java).—Braun, 1892a, 568, 739; 1893a, 873, 907.—Fischder., 1901, 372; 1903h, 575, 579 (syn. of *G. cobboldi*).—Sons., 1895, 185.—Stiles, 1898a, 24, 67, 69, 139, fig. 63.—Also reported for *Bos frontalis*.

compressus Brand., 1898a, 197, 219–220, 222 (5, 27–28), pl. 9, figs. 9–11 (in *Bos indicus*; Vien. Mus.); 1898, 219–220.—Fischder., 1901, 371; 1902a, 28 (in *Bos taurus indicus*); 1903h, 560, 563–565, figs. 48–49 (in *Bos indicus*), 567.

crumenifer (Crep., 1847) Otto, 1896, 95–97, figs. 3, 16 (for *G. crumeniferum*).—Bettend., 1897a, 38; 1897, 342.—Brand., 1898a, 195, 197, 199, 201, 204, 216–219, 220, 221 (3, 5, 7, 9, 12, 24–27), pl. 9, figs. 1–8.—Fischder., 1901, 371; 1902a, 25, 27–28, 30 (in *Bos taurus indicus*, Calcutta; *Bos kerabau*, Ceylon); 1903h, 557 (type), 557–563, 564, 566, 567, 568, 570, 571, 572, 574, figs. H, 44–47 (in *Bos zebu*, *B. kerabau*).—Linst., 1906, 175 (in *Bos bubalus*).—Stiles, 1898a, 24, 67, 68, 69, 140, figs. 57–62.

crumeniferum (Crep., 1847) Poir., 1883, 77.—Braun, 1893a, 907.—Fischder., 1901, 371; 1903h, 557–563, figs. H, 44–47, 563, 564, 566, 567, 568, 570, 571, 572, 574 (syn. of *G. crumenifer*) (in *Bos zebu*, *B. kerabau*).—Linst., 1906, 175 (in *Bos bubalus*).—Rail., 1903a, 378.—Sons., 1896, 311.—Stiles, 1898a, 67.—Ward, 1895, 332 (in *Bos taurus*).

elongatum Poir., 1883, 76–77, pl. 2, fig. 2 (in *Palonia frontalis*; Java).—Braun, 1892a, 739; 1893a, 873, 907.—Fischder., 1903h, 574, 575 (syn. of *G. elongatus*) (in *P. front.*; Java).—Mont., 1888a, 7.—Sons., 1895, 185.—Stiles, 1898a, 24, 67, 70, 139, fig. 64.

elongatus [Poir., 1883, 73–79 (in *Palonia frontalis*; Java)].—Brand., 1898a, 197, 198, 204, 223–225 (5, 6, 31–33), pl. 8, figs. 1–14 (in *Anoa depressicornis*; Zool. Gart., Berlin).—Fischder., 1901, 372; 1902a, 30–31 (in *P. front.*, Java; *Anoa depr.*, *Bos sp.*, Africa; *Bos taurus*, China); 1903h, 451, 512, 542 (in *Bos taurus*, Canton Fu-nui, China), 574–579, 580, 581, 587, figs. L, 59–62 (in *P. front.*, *Bos kerabau*, *Anoa depr.*); 1904, 463.—Gronkowski, 1902a, 520 (13).—Mont., 1888a, 7.

GASTROTHYLAX—Continued.

gregarius Looss, 1896b, 5–13, 170–177, pl. 1, figs. 1–3, pl. 11, fig. 116; pl. 12, figs. 119–121 (in Buffle; Alexandria, Egypt); 1898, 459; 1902m, 638.—Bettend., 1897a, 38; 1897, 342.—Brand., 1898a, 197, 198, 199, 222–223 (5, 6, 7, 30–31), pl. 9, figs. 12–16.—Fischder., 1901, 371; 1902a, 28 (in Egyptische Buffel); 1903b, 533; 1903h, 565–566, 584.—Kowal., 1898h, 158 (55).—Otto, 1896, 89–94, figs. 1–2, 11, 14, 15; 1896, 10–13.—Rossbach, 1906, 401.—Sons., 1896, 298, 311.—Stiles, 1898a, 24, 67, 71, 139, figs. 65, 66.

mancupatus Fischder., 1901, 371 (in African cattle); 1902a, 31–32, 33 (in *Bos taurus*; E. Africa); 1903h, 566, 584, 588, 589, 590, 591, figs. 67–71 (in *Bos taurus*, Dinka; Denjarinder, Afrika; *Bos taurus*, Africa, Nossi-Bé).

minutus Fischder., 1901, 372 (in Antilope sp., *Tragelaphus scriptus*, Kamerun); 1902a, 33–34; 1903h, 588–591, fig. N; 1904, 463.

spatiosus Brand., 1898a, 197, 220–221 (5, 28–29), pl. 8, figs. 15–16 (in *Bos taurus*, Dschidda, Arabian coast of Red Sea).—Fischder., 1901, 371; 1902a, 29, 31 (in *B. taurus*, Dschidda); 1903h, 566–570, 571, 581, 583 (in *B. taurus*), 584, 585, 586, figs. 50–54.

synthes Fischder., 1901, 371 (in *Bos kerabau*); 1902a, 29–30, 31 (in *B. ker.*; Ceylon); 1903h, 496, 539, 570–574, 575, 577, 578, 579, 580, 581, 584, 585, 586, figs. 55–58, J. K. (in *B. ker.*; Ceylon).

GASTROTYLAX Mont., 1892, Oct. 7, 214 (gen. of Amphistominae) (for Gastrothylax).

GENARCHES Looss, 1902m, 732 (*Progonus* Looss, renamed; type *mülleri*).—Odh., 1905, 364, 365, 366.

mülleri (Levin., 1881) [Looss, 1902m, 732] Odh., 1905, 363, 365–366, pl. 4, figs. 8–9.

GIRODACTYLIDÆ Sons., 1890, 175, for Gyrodactylidæ.

GIRODACTYLIDÆ Mont., 1888, 8, 13, 15, for Gyrodactylidæ.

GIRODACTYLUS Mont., 1888, 83, for Gyrodactylus.

GLAPHYROSTOMIUM Pratt, 1902a, 889, misprint for Glaphyrostomum.

GLAPHYROSTOMUM Braun, 1901g, 942 (tod. *adhærens*); 1902b, 129.—Pratt, 1902a, 889 (*Glaphyrostomium*), 907.

1902: *Glaphyrostomium* Pratt, 1902a, 889, misprint.

adhærens Braun, 1901g, 942 (in *Mycothera* sp., *Gallinula kioloides* Puch.; Brazil); 1902b, 130, 133.

propinquum Braun, 1901g, 942 (in *Dendrocalaptes scandens*; Brazil); 1902b, 132–133.

GLENOCERCARIA Dies., 1858d, 244 (type?). [See p. 385.]

flava (La Valette, 1855) Dies., 1858d, 244–245 (includes *Cerc. ephemera* Sieb., *Histrionella eph.* Sieb., *Cerc. flava* La Valette (in *Planorbis corneus*; Berlin, Heidelberg); 1858e, 326, 327 (to Monost.).—Linst., 1873, 1 (young of Monost. flavum Mehlis).—See *Typhlocœlum* 1902 (type).

tophocerca (Fil., 1857) Dies., 1858d, 245 (in *Paludina impura*; Turin).

melanoglena (Dies., 1855) Dies., 1858d, 245 (in salt water).

GLOSSIDIUM Looss, 1899b, 591–592, 594 (tod. *pedatum*); ἡ γλῶσσα, tongue.—Braun, 1902b, 55.—Heymann, 1905, 93.—Odh., 1902, 40, 42.—Pratt, 1902, 888 (related to *Plagiorchiniæ*), 899.

pedatum Looss, 1899b, 592, 705–706, fig. 27 (in *Bagrus bayad*, *B. docmac*; Cairo).—Luehe, 1900, 561.

GLOSSOCOTYLE Ben. & Hesse, 1863; 1864, 96, 102 (m. *alosæ*).—Braun, 1890a, 414, 477, 516, 517, 522, 546.—Cerf., 1895h, 918, 920; 1896, 514, 515.—Mont., 1888, 11, 16, 86, 89, 99; 1903, 336 (syn. of *Octobothrium*).—Tasch., 1879, 239.

alosæ Ben. & Hesse, 1863, 1864, 102–103, pl. 9, figs. 11–18 (in *Alosa vulgaris*).—Braun, 1890a, 408.—Tasch., 1879, 244 (to *Octobothrium*).

finia Mont., 1888, 13.

GLYPHICEPHALUS Looss, 1901l, 620–621 (tod. *solidus*); 1902m, 570–571 (type *solidus*), 576, 583, 584, 586, 589, 591, 593, 594, 596, 599, 603, 609, 610, 611, 612, 616 (diagnosis).—Pratt, 1902, 890, 909.

crassus Looss, 1901l, 568, 620 (in *Thalassochelys corticata*; Egypt); 1902m, 575 (to *Epibathra* as type), 876.

lobatus Looss, 1901l, 619 (in *Chelone mydas*; Egypt); 1902m, 416, 417, 573–575, 576, 596, 876, 877, pl. 26, figs. 81–82, pl. 27, fig. 91.

GLYPHICEPHALUS—Continued.

solidus Looss, 1901l, 7. Nov., 619 (in *Chelone mydas*; Egypt); 1902m, 571–573, 574, 587, 591, 616, 876, 877, 888, pl. 26, figs. 79, 80, pl. 27, figs. 92, 93, pl. 32, fig. 178.

GLYPHICHELMINUS Staff., 1905, Apr. 11, 686–687 (m. *quieta*); *γλυπτός*, carved; *ἔλμινς*, worm.

quieta (Staff., 1900) Staff., 1905, Apr. 11, 686 (in *Hyla pickeringii*, *Rana catesbiana*, *R. virescens*; Canada) (syn. *Opisthioglyphe endoloba* Duj. of Staff., 1900, 403).

GORGODERA Looss, 1899b, 551, 605–606 (tod. *cygnoides*); *γοργός*, motile; *ἡ δέρη*, neck; 1901b, 202; 1901l, 557, 558; 1902m, 478, 480 (includes: *cygnoides*, *amplicava*, *simplex*), 785, 797, 844, 848, 850, 851, 854, 856, 857, 858, 859, 860, fig. 1, 862 (Gorgoderinae, Gorgoderidae).—Braun, 1901b, 9.—Odhn., 1902, 65.—Osborn, 1903, 257.—Pratt, 1902, 888, 901.—Ssinitzin, 1906, 685.

amplicava Looss, 1899b, 606, 607 (“*D. cygnoides* var. A” of Bensley, 1897, renamed); 1901b, 202, 209; 1902m, 480, 798, 837, 844, 854, 857.—Staff., 1902, 412, 419–421 (syn. *D. cygnoides* var. A of Bensley); 1905, Apr. 11, 687 (in urinary bladder of American frogs and toads).

attenuata Staff., 1902, 418–419 (in *Rana catesbiana*, *R. virescens*; Canada).—1905, to Gorgoderina.

cygnoides (Zed., 1800) Looss, 1899b, 606; 1901b, 202, 209; 1902m, 444 (*Cerc. macrocerca*), 480, 797, 798, 837, 844, 851, 854, 857, 862.—Kowal., 1902d, (9) 27 (*Cerc. macrocerca* in *Cyclas cornea*).—Luehe, 1901, 54.—Osborn, 1903, 257.—Ssinitzin, 1905, 33 (of Looss syn. of *G. loossi*).—Staff., 1905, Apr. 11, 687 (in urinary bladder of American frogs and toads).

loossi Ssinitzin, 1905, 33–34, pl. 3, figs. 30–31 (*G. cygnoides* of Looss, renamed); 1906, 682.

opaca Staff., 1902, 416–417 (in *Bufo lentiginosus*; America).

pagenstecheri Ssinitzin, 1905, 34–36, pl. 2, figs. 21–27 (*cygnoides* of Pag., renamed); 1906, 682, 683 [=Dist. *cygnoides* Zed. of Pag.].

simplex Looss, 1899b, 606, 607 (*D. cygnoides* var. B of Bensley, 1897, renamed); 1901b, 202, 209; 1902m, 480, 798, 844, 851 (type of Gorgoderina), 863.—Staff., 1902, 412, 417–418 (in *Rana catesbiana*; America).

translucida Staff., 1902, 413–416 (in *Bufo lentiginosus*, *Rana virescens*; America).—Osborn, 1903, 256, 257, 258.

varsoviensis Ssinitzin, 1905, 36–37, pl. 1, fig. 1, pl. 3, figs. 32–34; 1906, 682 (in frogs; Warsaw).

vitelliloba (Olss., 1876) Ssinitzin, 1906, 682.

GORGODERIDE Looss, 1901, 558; 1902m, 485, 785, 810, 824, 843–866, 844 (diagnosis), 857 (includes Gorgoderinae, Anaporrhutinae).—Ssinitzin, 1906, 682 (of frogs).

GORGODERINA Looss, 1902m, 851 (tod. *simplex*), 857 (Gorgoderidae, Gorgoderinae), 858, 859, 860, 862¹, fig. 2.—Ssinitzin, 1906, 685 (in fish).—Staff., 1905, Apr. 11, 687.

attenuata (Staff., 1902) Staff., 1905, Apr. 11, 687 (American toads and frogs).

opaca (Staff., 1902) Staff., 1905, Apr. 11, 687 (in American frogs and toads).

simplex (Looss, 1899) Looss, 1902m, 857, 862, 863.—Staff., 1905, Apr. 11, 687 (American frogs and toads).

translucida (Staff., 1902) Staff., 1905, Apr. 11, 687 (in American frogs and toads).

vitelliloba (Olss., 1876) Looss, 1902m, 857, as doubtful member of genus.—Ssinitzin, 1905, 37, pl. 1, fig. 2, pl. 3, figs. 35–37; 1906, 685.

GORGODERINÆ Looss, 1899b, 604; 1901b, 202; 1901l, 558; 1902m, 478, 480, 485, 797, 844, 857 (includes: Gorgodera, Gorgoderina, Phyllodist., Catoptroides), 863 (diagnosis).—Braun, 1901b, 9.—Luehe, 1901, 488.—Odhn., 1902, 65, 67.—Pratt, 1902, 888 (Phyllodist., Gorgodera).

GRUBEA Dies., 1858e, 315, 385 (m. *cochlear*); 1859c, 444 (syn. *Pleurocotylus* Gerv. & Ben.).—Braun, 1890a, 518.—Mont., 1888, 84.—Tasch., 1879, 248 (syn. of *Pleurocotyle*).

cochlear Dies., 1858e, 385 (in *Scomber scombrus*).—Poyle, 1890, 539.—Tasch., 1878, 575; 1879, 248 (syn. of *Pleurocotyle scombri*).

scombri (Grube, 1855) Ben. & Hesse, 1864, 100 (to *Pleurocotyle*).

(GYMNOCEPHALA) Leidy, 1877, 201 (as subg. of Dist.) [not *Gymnocephalus* Bloch, Schneider, 1801, fish; Geoffroy, 1809, birds]. Apparently for *Cerc.* (*Gymnocephala*) Dies., 1858, 246.

ascoidea Leidy, 1877, 201 (in *Planorbis parvus*).

(GYMNOCEPHALA) Dies., 1858d, 246, (type?) as subg. of *Cercaria*.

agilis (Fil., 1857).—Dies., 1858d, 248–249 (in *Lymnæus stagnalis*; Turin).

brunnea (Dies., 1850) Dies., 1858d, 247 (in *Lymnæus stagnalis*).—See *Dist. echinatum*.

coronata (Fil., 1855) Dies., 1858d, 249, 250.

fallax (Dies., 1850) Dies., 1858d, 247–248, 262 (in *Lymnæus stagnalis*, *Paludina vivipara*).—See *Dist. militare*.

minuta (Nitzsch, 1817) Dies., 1858d, 246 (in various fresh-water mollusks; Halle).

proxima (Lespès, 1857) Dies., 1858d, 249–250.

renalis (Fil., 1855) Dies., 1858d, 265–266 (in *Helix adspersa*; Turin).

sagittata [Lespès, 1857] Dies., 1858d, 249 (in *Buccinum* (*Nassa*) *reticulatum*).

setifera (Mueller, 1850) Dies., 1858d, 250–251 (in sea; Triest).

tuberculata (Fil., 1857) Dies., 1858d, 248 (in *Paludina impura*; Turin).

GYMNOCEPHALE Dies., 1858d, 246, see *Gymnocephala*.

GYMNOPHALLINÆ Odhn., 1905, 314.

GYMNOPHALLUS Odhn., 1900, 12–23 (tod. *deliciosus*); 1905, 312, 313, 314.—Looss, 1901b, 200; 1902m, 839.—Luehe, 1900, 505, 506; 1901, 488; 1904, 79–82.—Marshall & Gilbert, 1905, 479.—Pratt, 1902, 889, 902.—Ward, 1901, 177.

bursicola Odhn., 1900, 14, 20–21, 22, fig. 4 (in *Somateria mollissima*: west coast of Sweden); 1905, 312, 313 (includes *Levithodendrium somateriæ* e. p. of Jameson).

choledochus Odhn., 1900, 14, 18–19, 22, fig. 3 (in *Vulpanser tadorna*; loc.?); 1905, 312, 313–314 (in *Somateria mollissima* at Eisfjord, W. Spitzbergen, and *S. spectabilis* at Franz-Joseph's Fjord, Greenland).

deliciosus (Olss., 1893) Odhn., 1900, 14–17, 18, 19, 20, 21, 22, figs. 1–2 (in *Larus argentatus*, *L. canus*, *L. fuscus*); 1905, 311 (in *Larus glaucus*, *L. marinus*).

micropharyngus (Luehe, 1898) Odhn., 1900, 14, 17, 22.—Luehe, 1900, 505; 1901, 57.

somateriæ (Levin., 1881) Odhn., 1900, 14, 19–20, 21, 22; 1905, 311–313, pl. 2, fig. 8 (in *Somateria mollissima*, *S. spectabilis*).

GYNECOPHORA Weinland, 1858, 87 (family name); 1859, 281.—Stiles & Hass., 1898a, 90, 94.

GYNECOPHORUS Dies., 1858e, 312, 356 (type *hæmatobius*).—Braun, 1893a, 880, 885, 894, 912; 1903, 3. ed., 168 (syn. of *Schistosomum*).—Cobbold, 1879b, 39; 1885a, 498 (syn. of *Bilharzia*).—Dunglison, 1893, 502.—Hoyle, 1890, 539 (= *Bilharzia*).—Huber, 1896a, 580 (syn. of *Bilharzia*).—Leuck., 1863, 617.—Mont., 1888, 92.—Rail., 1893a, 371.—Simon, 1897, 99.—Stiles & Hass., 1898a, 90, 93, 94.—Stoss., 1892, 4, 5.—Ward, 1895, 253.

bovis (Sons., 1876) Rail., 1893, 375.—Dolley.—Stiles, 1898a, 60.

crassus (Sons., 1888) Stoss., 1892, 6 (syn. *Bilharzia bovis*) (in *Bos taurus ægyptus*, *Ovis aries*).—Rail., 1893a, 375.—Stiles, 1898a, 60.—Ward, 1895, 332 (in *B. taurus*), 335 (in *O. aries*).

hæmatobius (Bilharz, 1852) Dies., 1858e, 356–357 (in *Homo*); 1859c, 480.—Aitken, 1866, 804, 840; 1872, 205 (to *Bilharzia*).—R. Bl., 1888a, 636.—Cobbold, 1866a, 6.—Harley, 1864a, 62 (to *Dist.*).—Huber, 1894, 298.—Rail., 1892, 161–164 (embryo); 1893a, 371.—Stiles, 1898a, 58.—Stoss., 1892, 5–6 (in *Homo*; Egitto, Nubia, Tunisia, Natale, Capo, Costa d'oro, Arabia; *Cercopithecus fuliginosus* in Africa).—Ward, 1895, 253, 256, 328 (in *Homo*), fig. 7; 1903, 872.

magnus (Cobbold, 1859) Stoss., 1892, 6 (syn. *Bilharzia magna*) (in *Cercopithecus fuliginosus*; Africa).—Braun, 1901e, 311.

GYRADACTYLIDÆ Mont., 1888a, 66, 107, see *Gyrodactylidæ*.

GYROCOTYLE Dies., 1850a, 408 (m. *rugosa*); 1859a, 492; 1859c, 447.—Mont., 1889c, 228–230 (*Amphiptyches* G. & W.); 1890b, 327–329; 1896, 153. [*Cestodaria*.]

rugosa Dies., 1850a, 408 (in *Antilope pyarga*; Port Natal); 1859a, 492 (in *Macra edulis*; Valparaiso); 1859c, 447.

urna (Grube & Wag., 1852) Mont., 1896, 151.

GYRODACTYLE Moul., 1856a, 10, for Gyrodactylus.

GYRODACTYLEE Cerf., 1899a, 452.

GYRODACTYLIDÆ Cobbold, 1877f, 326; 1879b, 4.—R. Bl., 1888a, 541 (embraced in Polystomiens).—Braun, 1890a, 463, 465, 469, 511, 516, 517, 519, 523, 533, 538, 542; 1890b, 127; 1893a, 890.—Cerf., 1899a, 452.—Gamb., 1896a, 53, 61, 73.—Goto, 1899, 291.—Jackson, 1888, 642, 654 (includes: Gyrodactylus, Dactylogyrus, Calceost., etc.).—Maclaren, 1904, 583, 597, 598, 599, 600, 601.—Mont., 1888a, 8, 13, 15 (Gyrodactylidæ); 1889, 116; 1891, 108, 109; 1905, 80.—Par. & Perugia, 1889, 745.—Scott, 1901, 141.—Sons., 1890, 175 (Gyrodactylidæ).—See also next entry.

GYRODACTYLIDÆ “Ben. & Hesse, 1863,” —.—Hoyle, 1890, 539 (includes: Gyrodactylus, Dactylogyrus, Tetraonchus, Diplectanum, Calceost., Sphyrnura).—Mont., 1888, 7, 8, 10, 11, 14, 20, 24, 37, 66, 70, 86, 88, 90, 101, 107, 108; 1903, 336 (raised from subf. to family rank; subf.: Gyrodactylinae (Gyrodactylus, Dactylogyrus); Tetraonchinae (Tetraonchus = Ancyrocephalus = Amphibdella = Dactylo-discus); Diplectaninae (Diplectanum); 1892, Oct. 7, 213 (fam. of Eterocotylea, includes subf. Calceostominae, Gyrodactylinae).—Par. & Perugia, 1890, 8.—Pratt, 1900a, 646, 653 (includes: Gyrodactylus, Dactylogyrus, Tetraonchus, Diplectanum, Calceost., Amphibdella, Dactylo-discus, Fridericianella, Anoplodiscus).—Stoss., 1898, 16–17.—Tasch., 1879, 69; 1879, 235, 237, 238, 260.—See also foregoing entry.

GYRODACTYLIDEA “Ben.”—Olss., 1893, 6.

GYRODACTYLIDES Tasch., 1879, 235.—Mont., 1888, 86.

GYRODACTYLINÆ Mont., 1892, Oct. 7, 213 (subf. of Gyrodactylidæ); 1903, 336 (f. Gyrodactylidæ); 1905, 65, 80.—Braun, 1893a, 890.—Gamb., 1896, 73.—St.-Remy, 1898, 523, 564.

GYRODACTYLUS Nordl., 1832a, 105–106 [type by elimination elegans]; 1840, 603.—Ben., 1858a, 1861a, 11, 63–66, 171, 177, 297.—Ben. & Hesse, 1864, 121.—Biehringer, 1884, 19, 23.—Braun, 1883a, 57; 1889i, 440; 1889k, 622; 1890a, 412, 416, 436, 438, 443, 444, 445, 448, 450, 451, 452, 468, 470, 478, 486, 492, 503, 508, 511, 515, 516, 517, 523, 542, 543; 1892a, 813; 1893a, 888, 889, 890; 1893b, 179, 184, 187.—Burm., 1856a, 251.—Carus, 1863, 478.—Crep., 1838, 84; 1839, 301.—Dies., 1850a, 290, 432, 433 (syn. of Dactylogyrus), 650, 651; 1858e, 314, 374–375; 1859c, 423, 439.—Duj., 1845a, 480–481.—Fraip., 1880c, 442.—Gamb., 1896, 55, 61, 63, 73.—Goldb., 1855, 20.—Haswell, 1892b, 150; 1893e, 114.—Hoyle, 1890, 539.—Jackson, 1888, 643, 646, 648, 654.—Kath., 1894a, 125–164; 1894b, 125–164; 1895a, 431; 1899a, 328–329.—Leuck., 1863, 48, 51, 489; 1879, 58, 62.—Looss, 1892a, 72.—Maclaren, 1904, 586, 587, 598, 599, 600.—Metschnikoff, 1869a, 61–65 (embryology).—Mont., 1888, 10, 13, 14, 53, 63, 70, 71, 72, 73, 76, 84, 86, 95, 101, 107, 108; 1889, 114; 1891, 109, 111; 1892, Oct. 7, 186, 213 (g. of Gyrodactylinae); 1903, 336 (subf.: Gyrodactylinae).—Odhn., 1900, 65.—Plehn, 1905, 28–30 (treatment with ammonia).—Pratt, 1900a, 646, 654, 657, fig. 43, 661.—Roth, 1904, 60–61 (treatment).—St. Remy, 1898, 524, 565.—Sieb., 1839, 163; (1849) v. 1 (4), 347–363.—Tasch., 1879, 69; 1879, 233, 258, 260 (syn. Dactylogyrus), 261 (syn. of Dactylogyrus), 263 (of Wedl, syn. of Tetraonchus).—Wagener, 1857, 25, 26, 49, 50, 76.—Wallenstedt, 1847, 7.

anchoratus Duj., 1845a, 480–481, pl. 8, fig. j (t. h. “carpe”).—Bradley, 1861a, 257.—Dies., 1850a, 432.—Kath., 1894a, 155, 156.—Tasch., 1879, 261 (syn. of Dactylogyrus auriculatus).—Wagener, 1857, 49.

auricularis Wedl, 1857, 254, 258, 259, 274, 277, pl. 3, figs. 27–31 [uses auricularis and auriculatus], in *Cyprinus carpio*.—Dies., 1858e, 376 (syn. of Dactylogyrus anchoratus).—Kath., 1894a, 157.—Tasch., 1879, 261 (syn. of Dact. auriculatus).

auriculatus Nordl., 1832a, 108–109, pl. 10, figs. 4–9 (t. h. *Cyprinus brama*); 1840, 546, 603–604.—Ben., 1858a, 1861a, 64, 66–67, pl. 7, figs. 9–11 (in *C. br.*).—Braun, 1891d, 421.—Crep., 1838, 84, 85, 86, 87; 1839, 301.—Dies., 1850a, 432 (of Duj., 1845a, 480, syn. of *G. dujardinianus*), 433 (of Nordl., type of Dactylogyrus); 1859c, 440 (of Ben., 1858, 66, syn. of Dact. duj.).—Duj., 1845a, 480, pl. 8, fig. H.—Kath., 1894a, 155, 156.—Mont., 1888, 10.—Sieb., 1835, 70.—Tasch., 1879, 260 (of Duj. syn. of Dact. duj.), 261 (of Nordl., to Dactylogyrus).—Wagener, 1857, 49, 50.—Wedl, 1857, 258–274, pl. 3, figs. 27–31.

cochlea Wedl, 1857, 258–274, pl. 3, figs. 32–37 (in *Esox lucius*).—Cobbold, 1862m, 38; 1879b, 466.—Dies., 1858e, 380 (syn. of Tetraonchus monenteron).—Kath., 1894a, 157.

GYRODACTYLUS—Continued.

- crassiusculus* Wedl. 1857, 258–274, pl. 4, figs. 38–40 (in *Lucioperca sandra*).—Cobbold, 1862m, 38; 1879b, 466.—Dies., 1858e, 381 (syn. of *Tetraonchus unguiculatus*).—Kath., 1894a, 157.—Tasch., 1879, 263 (syn. of *Tetr. ung.*).
- cruciatus* Wedl. 1857, 258–274, pl. 4, figs. 46–47 (in *Cobitis fossilis*).—Dies., 1858e, 381 (to *Tetraonchus*).—Kath., 1894a, 157.—Tasch., 1879, 264 (to *Tetr.*).
- dujardinianus* Dies., 1850a, 432 (auriculatus of Duj., 1845a, 480, pl., fig. H, renamed) (in *Cyprinus carpio*, *Leuciscus rutilus*); 1858e, 376 (to *Dactylogyrus*).—Kath., 1894a, 156.—Kroyer, 1852–53a, 1224 (in *Leuc. rut.*).
- elegans* Nord., 1832a, 106–108, pl. 10, fig. 1–3 (t. h. *Cyprinus brama*); 1840, 603.—Ben., 1858a, 1861a, 11, 64, 67–68, 223, pl. 7, fig. 12 (in *Cyp. br.*).—Ben. & Hesse, 1864, 121.—Bradley, 1861b, 209–210 (on stickle-back in Hampstead ponds).—Braun, 1883a, 57, 71; 1890a, 417, 425, 426, 438, 454, 455, 508, 543, 549, 550, 551; 1893b, 179.—Cobbold, 1862m, 35–39; 1879b, 464, 465, 466, fig. 79.—Crep., 1838, 84, 85, 87; 1839a, 301.—Dies., 1850a, 432, 649, 651; 1852, 417, v. 13, 51–54; 1858e, 375 (in *Cyp. carpio*, *Abramis brama*, *Gasterosteus aculeatus*, *G. pungitius*, *Phoxinus laevis*, *Cobitis barbatula*); 1859c, 439–440.—Duj., 1845a, 480.—Gamb., 1896, 61, fig. 29.—Houghton, 1862a, 77 (in Shropshire).—Hoyle, 1890, 539, 540, fig. 3.—G.—Jackson, 1888, 650.—Janicki, 1903a, 241–245, figs. 1–4 (egg segmentation); 1903b, 380.—Kath., 1894a, 127, 129, 130, 132, 133, 134, 140, 141, 144, 150, 155, 156, 157, 158, pl. 7, figs. 1, 2, 5, 6; 1899a, 328; 1904a, 519–550, figs. A–K, 1–26 (development); 1904b, 444–445; 1905a (I, 31), 18–19.—Kholodk., 1899a, 148.—Kowal., 1902d, 23 (5) (in *Cyp. carpio*); 1904, 328–329; 1904, 10, (25) (in *Cyp. carpio*; Galicia); 1905a, 18–19.—Kroyer, 1838–40a, 592, 593; 1852–53a, 1225, 1226 (in *Phoxinus aphyia* L., *Cob. barb. L.*, *Gast. acul.*, *G. pungitius*).—Leuck., 1863a, 489.—Levin., 1881a, 79.—Mont., 1888a, 8, 70; 1891, 111; 1892, Oct. 7, 186.—Odhn., 1905, 372.—Olss., 1893, 6.—Pavesi, 1881, 616.—St.-Remy, 1898, 565–566.—Schneidmuehl. 1896, 303.—Sieb., 1839, 164; 1849, 347.—Sramek, 1901, 95, 110, fig. 65 (in *Abramis brama*).—Tasch., 1879, 260–261 (in *Cyp. carpio*, *Abramis brama*, *Gast. acul.*, *G. pungitius*, *Phoxinus laevis*, *Cob. barb.*).—Wagener, 1857, 49, 50, 51–54, 57, 60, 63, 64, 76; 1860, 768–793, pls. 17–18; 1861, v. 1, 196–212 (reported also for *Abramis vimba*, *Cyclopterus lumpus*, *Esox lucius*, *Gobius minutus*, *Leuciscus phoxinus*).
- falcatus* Wedl. 1857, 258–274, pl. 4, figs. 48–50 (in *Cyprinus sp.*).—Dies., 1858e, 377 (to *Dactylogyrus*).—Kath., 1894a, 157.—Tasch., 1879, 261 (to *Dact.*).
- gracilis* Kath., 1894a, 129, 131, 139, 141, 143, 147, 150, 157, 158–159, pl. 7, figs. 4, 7, (in *Cobitis fossilis*, *Cyprinus carpio*, *Gobius fluviatilis*, *Leuciscus erythrophthalmus*, *L. rutilus*) [= *G. elegans* of Ben.].—Odhn., 1905, 372.—St.-Remy, 1898, 566.
- grœnlandicus* Levin., 1881a, 78–79, pl. 3, figs. 5–6 (in *Cottus scorpius*; Egedesminde).—Odhn., 1905, 372.—Pratt, 1900, 372; 1900, 657, 661, fig. 43.
- medius* Kath., 1894a, 129, 131, 137, 141, 143, 147, 150, 158, pl. 7, figs. 3, 8, pl. 8, figs. 9–16, pl. 9, figs. 17–24 (in *Cobitis fossilis*, *Cyprinus carpio*); 1899a, 328.—Odhn., 1905, 372.—St.-Remy, 1898, 566.
- mollis* Wedl. 1857, 258–274, 272, pl. 4, fig. 51 (in *Cyprinus carpio*).—Dies., 1858e, 379 (to *Dactylogyrus*).—Kath., 1894a, 157.—Tasch., 1879, 262 (to *Dact.*).
- species Ben., 1870, 27, pl. 3, fig. 14, see *Dactylogyrus benedeni*.—St.-Remy, 1898, 566, 567.
- species Ben., 1870, 64, pl. 3, fig. 13.
- tenuis* Wedl. 1857, 258–274, 270, 278, pl. 4, figs. 41–45 (in *Perca fluviatilis*).—Cobbold, 1862m, 38, 39.—Dies., 1858e, 379 (to *Dactylogyrus*).—Kath., 1894a, 157.—Tasch., 1879b, 262 (to *Dact.*).

GYRODAKTILIDÆ Schneidmuehl, 1896, 296, for Gyrodactylidæ.

HEMATOBIUM shortened form of *Dist. hæmatobium* Dunglison, 1893, 506; also Reichenback's term for a blood corpuscle.—Billings, 1890, 612.—Danilewsky, 1890c, 753 [= *Plasmodium*].

equi Burke, 1882, 320, fig. 1 (a blood filaria), 322, fig. 2 (egg of fluke).

HEMATOLÆCHUS Looss, 1899b, 600–601, 602, 603 (tod. variegatus Looss, 1899) [not *Hæmatolæcha* Stål, 1874, hemipteron] (renamed: *Pneumonæces* Looss, 1902m, 732) *αἱματολοιχός*, blood sucking; 1902m, 732, 839.—Klein, 1905, 64.—Luehe, 1900, 557, 561.—Odhn., 1902, 41.—Ofenheim, 1900, 156, 164, 182.—Pratt, 1902, 888, 900; 1903, 37.—Staff., 1902, 418; 1902, 725; 1902, 895–912; 1905, Apr. 11 (= *Pneumonæces*).—Stiles, 1901r, 189.—Stiles & Hass., 1901d, 20.

HÆMATOLÆCHUS—Continued.

- asper* Looss, 1899b, 601, 603–604 (separated from variegatus).—Luehe, 1902, 238.—Staff., 1902, 896.
- breviplexus* Staff., 1902, 901, 904–905, pl. 33, fig. 2 (in *Rana catesbiana*, *R. virescens*; Canada).
- longiplexus* Staff., 1902, 901–903, pl. 33, fig. 1 (in *Rana catesbiana*; Canada).
- medioplexus* Staff., 1902, 901, 908–910, pl. 33, fig. 5 (in *Bufo lentiginosus*, *Rana virescens*; Canada).
- similigenus* Stiles & Hass., 1902d, 20 (*H. similis* [*Distoma simile*] renamed).
- similiplexus* Staff., 1902, 901; 907–908, pl. 33, fig. 4 (in *Rana virescens* Kalm, *Bufo lentiginosus* Shaw; Canada).—Seely, 1906, 252.
- similis* Looss, 1899b, 601, 602 (“*Dist. simile* Looss, 1899” nec Sons., 1890).—Staff., 1902, 896, 908.—Stiles, 1901, 178.—Stiles & Hass., 1902d, 20 (renamed *similigenus*).
- variegatus* (Rud., 1819) Looss, 1899b, 601, 602; 1902m, 429, 732 (type of *Pneumonocercus*).—Luehe, 1900, 556.—Ssinitzin, 1905, 137–140; 1906, 686 (in *Colopteryx virgo*; Warschau).—Staff., 1902, 896, 906.—Stiles, 1901, 178.—Stoss., 1902, 5.
- varioplexus* Staff., 1902, 901, 906, pl. 33, fig. 3 (in *Rana catesbiana*; Canada).

HÆMATOTREPHUS Stoss., 1902, 8, 22–23 (tod. lanceolatus Wedl).

- cymbius* (Dies., 1850) Stoss., 1902, 27–28 (in *Himantopus wilsoni*; Brazil).
- fasciolus* Stoss., 1902, 25, pl. 6, figs. 21, 22 (in *Numenius arquatus*; locality?).
- lanceolatus* (Wedl, 1858) Stoss., 1902, 23–24, pl. 5, figs. 17, 18 (in *Himantopus candidus*; Rome; *H. melanopterus*).
- phaneropsolus* Stoss., 1902, 25–26, pl. 6, figs. 23, 24 (in *Totanus* sp.; Yeddo, Japan).
- similis* Stoss., 1902, 24, pl. 5, figs. 19, 20, pl. 8, fig. 30 (in *Himantopus atropterus*; Cairo, Alexandria).
- tringe* (Brand, 1892) Stoss., 1902, 26–27, pl. 7, fig. 26 (in *Tringa variabilis*; Tor, Sinai).

HALICOMETRA Pratt 1902a, 888 (subf., Psilostominae) 896, for Helicometra.

HALIPEGUS Looss, 1899b, 645–646 (m. ovocaudatus); ἄλις, enough; πηχός, well fed; 1902m, 839.—Odhn., 1905, 364.—Ofenheim, 1900, 183.—Luehe, 1901, 485.—Pratt, 1902a, 889 (related to Syncœliinae), 905.

- dubius* Klein, 1905, 68 (in *Coluber olivaceus*); 1905, 10.
- longispina* Klein, 1905, 65–68, pl. 5, fig. 3 (in *Rana hexadactyla*); 1905, 7–10.
- occidualis* Staff., 1905, Apr. 11, 687–688 (in *Rana clamata* Daud., *R. catesbiana* Shaw; Canada) (syns.: *Dist. ovocaudatum* of Nickerson 1898, 261, and of Staff., 1900, 409).
- ovocaudatus* (Vulpian, 1858) Looss, 1899b, 645.—Klein, 1905, 7, 8, 9; 1905, 65.—Luehe, 1900, 507; 1900, 558, 559.—Odhn., 1905, 364.—Ssinitzin, 1905, 140–144; 1906, 686 (in *Calopteryx virgo*; Warschau); larva is *Cerc. cystophora*.—Staff., 1904, May 3, 484 (compared with *Derogenes varicus* (in mouth of frogs) sp. Luehe, 1900, 558–559.—See *dubius* Klein, 1905).

HALZOUN Khouri, 1904, 78, name of disease, see sub Fascioliasis.

HAPALOMETRA Pratt, 1902, 889, misprint for Hapalotrema.

HAPALOTREMA Looss, 1899b, 656–657 (m. constrictum=mistroides); 1902m, 415, 520, 521, 523, 524, 839.—Braun, 1902b, 23.—Luehe, 1901, 488.—Odhn., 1902, 41, 42.—Ofenheim, 1900, 183.—Pratt, 1902a, 889 (Hapalometra, misprint), 907.

1902: Hapalometra Pratt, 1902a, 889, misprint.

constrictum (Leared, 1862 [nec Mehlis, 1846]) Looss, 1899b, 656, 750–752, figs. 72–75; 1902m, 417, 519–521 (in *Thalassochelys corticata* in Egypt).

mistroides (Mont., 1876).—Stiles & Hass., 1908, 279.

HAPLOMETRA Looss, 1899b, 599–600 (tod. cylindracea), 601, 602, 603; 1902m, 839.—Luehe, 1900, 557, 561.—Odhn., 1902, 41.—Ofenheim, 1900, 182, 183.—Pratt, 1902, 888, 900.—Staff., 1905, Apr., 11, 691.

cylindracea (Zed., 1800) Looss, 1899b, 600.—Darr, 1902, 663, 678.—Kowal., 1902d, (8) 26; 1904, (9) 24, (in *Rana temporaria*; Dublany).—Luehe, 1900, 556, 557.

HAPLOMETRINÆ Pratt, 1902a, 888, 900 (includes: Haplometra, Hæmatolæchus, Ostriolum, Macrodera; related genera: Opisthogonimus, Asymphylodora).

HAPLOPORINE Looss, 1902, 129-143, 14 figs., distome subf.

HAPLOPORUS Looss, 1902h, 134-135 (tod. benedeni).

benedeni (Stoss., 1887) Looss, 1902h, 135, 136-138, figs. 5-6.

lateralis Looss, 1902h, 138-139, figs. 7-8 (in *Mugil auratus*, M. chelo).

HAPLORCHIDINE Pratt, 1902, 890 (includes: Haplorchis, Galactosomum, Opisthotrema, Cyclocelum, Notocotylus, Ogmogaster, Stictodora, Mesometra, Monost.).

HAPLORCHINE Looss, 1899b, 671.

HAPLORCHIS Looss, 1899b, 670-671 (tod. pumilio); ἀπλοῦς, single; 1902m, 442, 512.—MacCallum, 1902, 636.—Pratt, 1902, 890, 910.

cahirinus (Looss, 1896) Looss, 1899b, 671, 752-754, fig. 89.

pumilio (Looss, 1896) Looss, 1899b, 671.

HAPLOSPLANCHNUS Looss, 1902i, July 26, 119-122 (m. pachysomus); 1902k; 1903n, 899; 1905h.—Odhn., 1905, 293.

pachysomus (Eysenhardt, 1829) Looss, 1902i, 129.

HAPLOSTOMUM Burm., 1856a, 250 ("Bei den Holostomiden (Acolytea Dies.) ist ausser der Sauggrube, worin sich der Mund befindet, keine zweite Sauggrube am Körper vorhanden.—Diplostomum und Haplostomum mit den davon abgezweigten Formen haben weit von einander getrennte Geschlechtsöffnungen; bei Holostomum stehen sie dicht neben einander").

HARMOSTOMINE Looss, 1900, 605.—Pratt, 1902, 889, 907 (includes: Harmost., Itygonimus, Glaphyrostomum, Scaphiost.).

HARMOSTOMUM Braun, 1899g, 492 (tod. leptostomum; also places here D. spinulosum Hofm., D. opisthotrias Lutz); 1900h, 5, 11, 12, 13; 1901b, 34; 1901c, 338, 342 (syn. Heterolope); 1901, 562, 564, 567; Braun, 1901, 897; 1902b, 114, 115, 116, 120, 122, 125, 135 (syn. Heterolope).—Cohn, 1902, 880.—Looss, 1900, 605 (Marmost., misprint); 1901, 199; 1902m, 813, 839.—Luehe, 1900, 557; 1901, 488.—Odhn., 1902, 42.—Pratt, 1902, 889, 907.—Stiles, 1901, 183, 185.

1899: Heterolope Looss, 1899b, 551, 651-652, 653, 655 (tod. leptostoma) [not Heterolope Franzenau, 1884, protozoon].

1900: Marmostomum Looss, 1900, 605, misprint.

aequans (Looss, 1899) Braun, 1900h, 12; 1901c, 338.

caudale (Rud., 1809) Braun, 1901f, 562; 1902b, 123, 124 (syn. Dist. caryocatactis Zed.) (in *Nuciiraga caryocatactes*).

centrodes Braun, 1901g, 941 (in *Tinamus variegatus* Lath.; Brazil); 1902b, 120, 121, 122, figs. 73, 74.

fuscatum (Rud., 1819) Braun, 1902b, 114, 115 (in *Coturnix communis*), 116, 118, 129, fig. 71.

leptostomum (Olss., 1876) [Braun, 1899g, 492]; 1906, 133, fig. 68 (in *Helix hortensis*).

marsupium Braun, 1901g, 941 (in *Perdix rufina* Spix; Brazil); 1902b, 118, 121, fig. 72.

mesostomum (Rud., 1803) Braun, 1902b, 128 (syn. D. caudale Rud.).

mordens Braun, 1901g, 941 (in *Rallus* sp.; Brazil); 1902b, 122, 132, fig. 75.

opisthotrias (Lutz, 1895) Braun [1899g, 492] 1901c, 338-339.

[*spinulosum* (Hofman, 1899) Braun, 1899g, 492.]

HECTOCOTYLUS Cuv., 1829b, 147 (type octopodis).—This supposed worm is not a trematode, but a male mollusk. The name is written in various ways: Hectocotyle, etc.

HELICOMETRA Odhn., 1902, 160-161 (tod. pulchella); 1905, 327, 328.—Stoss., 1903, v. 7 (3), 373-376, 1 fig.; 1904, 199; 1905, Jan. 31, 23; 1905, Jan. 10, 789.

1902: Halicometra Pratt, 1902a, 888, 896, misprint.

fasciata (Rud., 1819) Odhn., 1902, 161, 162.—Stoss., 1903, 373, 375; 1904, 13.

flava Stoss., 1903, 373-376, 1 fig. (in *Centropristis hepatus*; Triest); 1904, 13.

gobii (Stoss., 1883) Stoss., 1904, 12-13 (in *Gobius jozo*; Triest).

mutabilis (Stoss., 1902) Stoss., 1903, 375, 376; 1904, 13.—Engler, 1904, 186.—Hil-lack, 1902a, 868.

pulchella (Rud., 1819) Odhn., 1902, 161-162, fig. 3 (syn. D. labri Stoss.).—Stoss., 1903, 373, 375; 1904, 13.

sinuata (Rud., 1819) Odhn., 1902, 162.—Stoss., 1903, 373, 375; 1904, 13.

HEMISTOMA Cobbold, 1876, 853, for Hemistomum.—Fischder., 1903h, 488.

HEMISTOME Brand., 1890a, 585.

HEMISTOMIDE Brand., 1888a, 58.—Braun, 1893a, 887.—Heider, 1900, 19–22, 4 figs. (Braunina n. g.).

HEMISTOMINE Braun, 1893a, 890, 895, 902.—Mont., 1892, Oct. 7, 214 (subf. of Holostomidae).—Mueh., 1898, 18.—Pratt, 1902, 890 (Hemist.).—Wolf, 1903, 621.

HEMISTOMUM Dies., 1850a, 287, 307–312 (type by inclusion *alatum* = *Alaria vulpis*; also type by first species rule) (syns.: Plan. Goeze, Festuc. et *Alaria* Schrank, Fasc. Gmelin, *Strigea* Abildg., Dist. et Amphist. Rud., Holost. Nitzsch), 397 [not *Hemistomia* Crosse, 1872, mollusk]; 1855, 60–61; 1858e, 312, 318–319.—Brand., 1888a, 8, 9, 12, 13, 14, 50, 59; 1892, 505.—Braun, 1892a, 599, 600; 1893a, 872, 879, 887, 890, 894, 895, 900, 902, 917; 1894, 166; 1895b, 132, 136.—Carus, 1863, 479.—Cohn, 1904, 235.—Fischder., 1903h, 488.—Gamb., 1896, 73.—Goldb., 1855, 17.—Johnston, 1904a (in Australian birds).—Hoyle, 1890, 539 (3 sp., 1 in wild cat, 2 in birds).—Looss, 1896b, 13 (sp. of Sons., syn. of *Gastrodiscus aegyptiacus*).—Mont., 1888, 71, 84, 91; 1891, 105, 109; 1892, Oct. 7, 214 (gen. of Hemistominae).—Moul., 1856a, 12, 15.—Pratt, 1902, 890, 908.—Rail., 1893a, 381; 1896, 160 (= *Conchosomum*).—Schneidemuehl, 1896, 295, 303.—Villot, 1878, 19; 1898, 538.—Wolf, 1903, 607.

1876: *Hemistoma* Cobbold, 1876, 853.

aegyptiaca (Cobbold, 1876) Cobbold, 1876, Dec., 853–854.

alatum (Goeze, 1782) Dies., 1850a, 307–308 (includes Plan. *alata* Goeze, Festuc. *alata* Schrank, Fasc. *alata* Rud., Dist. *alatum* Zed., Holost. *alatum* Nitzsch, Fasc. *vulpis* Gmelin, *Alaria vulpis* Schrank, Dist. *vulpina* Abildg.).—Anacker, 1892c, 94.—Baillet, 1866b, 106 (to Holost.).—Brand., 1888a, 16, 60 (syns. *Alaria vulpis* Schrank, Dist. *alatum* Rud., D. *vulpina* Abildg., Fasc. *alata* Rud., Festucaria *alata* Schrank, Fasc. *vulpis* Schrank, Holost. *alatum* Nitzsch, Plan. *alata* Goeze) (in *Canis familiaris*, C. *vulpis*, *Thos cancrivorus*); 1890a, 568, 569, 587, pl. 40, figs. 1–5.—Braun, 1883b, 25; 1892a, 569, 599; 1893a, 879, 902; 1896b, 3; 1896d, 583; 1897c, —; 1901e, 336.—Cobbold, 1879b, 432.—Dav., 1877a, 233.—Mol., 1858, 127; 1861, 193.—Mueh., 1898, 18.—Par., 1894, 202, 620, 809, 1050.—Rail., 1893a, 382; 1896, 160 (to *Conchosomum*).—Ratz, 1898, 397.—Schneidemuehl, 1896, 303.—Sons., 1889, 192 (*Emistomum*).—Stoss., 1891, 111 (in *Vulpes vulgaris*).—Ward, 1895, 341 (in *Canis familiaris*).—Zuern, 1882, 221.—Also reported for *Canis azaræ*, *Canis lagopus*, C. *lupus*, *Megalotis cerdo*.

attenuatum Linst., 1906, 11–12, pl. 1, fig. 13 (in *Buteo vulgaris*).

auritus (Duj., 1845) Dies., 1850a, 311–312 (in *Strix flammea*, Apr., Rhedoni).—Brand., 1888a, 62; 1890a, 589 (in St. flam.).—Braun, 1893a, 902.

clathratum Dies., 1850a, 308 (t. h. *Lutra brasiliensis*; Matogrosso, Brazil); 1855, 61, pl. 1, figs. 13–15; 1858e, 318, 319.—Brand., 1888a, 60–61; 1890a, 587–588, pl. 40, figs. 6–13 (in L. bras.).—Braun, 1892a, 569, 582, 599, 699; 1893a, 902.—Cobbold, 1879b, 298.—Wolf, 1903, 605, fig. 2.

commutatum Dies., 1850a, 311 (includes “*Amphist. pileatum*” of Bremser, pl. 8, figs. 28, 29, not of Rud., 1819) (t. h. *Sterna caspica*; June, M. C. V.).—Brand., 1888a, 62; 1890a, 590 (in S. cas.).—Braun, 1893a, 902.

cordatum Dies., 1850a, 308–309 (t. h. *Felis catus ferus*; Nov., M. C. V.); 1855, 61, pl. 1, figs. 16–18; 1858e, 319.—Brand., 1888a, 24, 25, 61–62; 1890a, 552, 554, 589, pl. 40, figs. 18, 20 (in *Felis catus*); 1892, 505.—Braun, 1892a, 569, 579; 1893a, 902.—Cobbold, 1879b, 307.—Heider, 1900, 19, 21.—Schneidemuehl, 1896, 303.—Wolf, 1903, 605, 606, 609, fig. 3.

denticulatum (Rud., 1819) Dies., 1850a, 311 (in *Alcedo ispida*; Rhedoni).—Brand., 1888a, 62 (in A. isp.; Wien. Mus.); 1890a, 589.—Braun, 1893a, 902.—Villot, 1898, 538, 539, 540, 541, 542 (adult of *Diplost. volvens*; larva in *Phoxinus laevis*).—Wolffhuegel, 1900, 9, 18.

ellipticum Brand., 1888a, 59–60, 67 (in *Piaya cayana*; by Natterer); 1890a, 586, 595.—Braun, 1893a, 902 (Brazil).

excavatum (Rud., 1803) Dies., 1850a, 309–310 (in *Ciconia alba*, July, Gryphæ; C. *nigra*).—Braun, 1893a, 902; 1894, 167.—Brand., 1888a, 62; 1890a, 590 (in *Ciconia alba*, C. *nigra*).—Giebel, 1857, 265.—Mueh., 1898, 16, 18.—Also reported for *Nycticorax griseus*.

grande (Dies., 1850) Brand., 1890a, 576 (syn. of *H. macropterum*).

intermedium Johnston, 1904, 109–110, pl. 5, figs. 7–10 (in *Cygnus atratus* Lath.).

HEMISTOMUM—Continued.

kordatum, see *cordatum*.

macropteryum Wien. MS. in Brand., 1888a, 55 (syn. *Diplost. grande* Dies.); 1890a, 576, 581.

pedatum Dies., 1850a, 309 (t. h. *Didelphis myosurus* and *D. cancrivorus*; Brazil, May, June, Dec.); 1855, 61–62, pl. 1, figs. 19–24; 1858e, 319.—Brand., 1888a, 57, 61 (in *Did. cancr.*, *D. my.*); 1890a, 584, 588, pl. 40, fig. 14.—Braun, 1892a, 581; 1893a, 880, 902.

pileatum Brand., 1888a, 59, 62, 64 (in *Sterna caspica*, *Larus glaucus*, *Colymbus arcticus*, *Mergus merganser*) (syn. *Holost. erraticum* of Linst., 1877c, 188, pl. 13, figs. 18–19); 1890a, 586, 589, 590, 591, pl. 40, fig. 21; 1892, 510.—Braun, 1892a, 582; 1893a, 902.—Kowal., 1904, (8), 23 (in *Mergus merganser*).—Linst., 1906, 12.—Mueh., 1898, 18.—Stoss., 1895, 37; 1898, 20.—Wolffhuegel, 1900, 9, 15, 54, 61, 62.—Reported also for *Buteo vulgaris*, *Ciconia alba*, *Colymbus glacialis*, *C. septentrionalis*, *Larus marinus*, *L. ridibundus*, *Nyctea nivea*, *Podiceps cristatus*.

podomorphum (Nitzsch, 1819) Dies., 1850a, 311 (in *Falco haliaetos*; Halle).—Brand., 1888a, 62; 1890a, 589 (in *F. hal.*).—Braun, 1893a, 902.—Also reported for *Circus cineraceus*.

spathaceum (Rud., 1819) Dies., 1850a, 310 (syns. *Amphist. lari glauci* Rud., *Holost. spathaceum* Duj., 1845a, 375) (in *Larus argentatus*, *L. argentatoides*, *L. canus*, *L. marinus*, *L. tridactylus*; London).—Brand., 1888a, 62 (same hosts); 1890a, 589.—Braun, 1891d, 424 (in *Lestris buffonis*); 1894k, 681; 1894, 166, 167.—Kowal., 1896d, 252 (2) (in *Dominicanus marinus* Bruch., Lwow).—Loennb., 1891, 76.—Mueh., 1898, 16, 18–19.—Olss., 1876, 29 (to *Diplost.*).—Stoss., 1898, 20.—Villot, 1898, 542 (adult of *Diplost. volvens*).

spathula (Crep., 1825) Dies., 1850a, 309 [also *spatula*, *spatulum*] (includes: *Strigea falconis palumbarii* Viborg, *Amphist. falconis palumbarii* Rud., *A. striatum* Rud., *A. macrocephalum* (*Falconis milvi*) Rud., *A. macrocephalum* Bremser non Rud.; *Holost. spatula* Crep.); 1858e, 319 (in *Falco nisus*).—Brand., 1888a, 54, 59, 62, 68 (to Dist.); 1890a, 574, 580, 585–586, 589, 596, pl. 40, figs. 15–17 (in *Buteo vulgaris*, *Syrnium aluco*).—Braun, 1891d, 424; 1893a, 879, 902; 1893b, 185 (in *Circus æruginosus*).—Cobbold, 1858b, 164 (in *Strix otus*, *Falco milvus*); 1879b, 447.—Kowal., 1896d, (2) 252 (in *Buteo vulgaris* Bechst.; Dublin).—Linst., 1903, 279 (*spatula*); 1906, 12 (in *Buteo vulg.*).—Mol., 1858, 127; 1861, 193–194, pl. 1, figs. 3–5.—Mueh., 1898, 19.—Par., 620, 1050.—Stoss., 1890, 50; 1892, 66; 1895, 36–37; 1896, 126; 1898, 20.—Wedl., 1857, 257–258, pl. 1, figs. 23–26.—Wolffhuegel, 1900, 9, 11, 12, 14, 15, 16, 17, 44.—Reported also for *Accipiter nisus*, *Aegolius brachyotus*, *Aquila chrysaetos*, *A. nævia*, *Archibuteo vulgaris*, *Ascolopax gallinago*, *Astur nisus*, *A. palumbarius*, *Botaurus stellaris*, *Brachyotus palustris*, *Bubo maximus*, *Buteo lagopus*, *Circæus gallicus*, *Circus cyaneus*, *C. rufus*, *Falco albicilla*, *Milvus ater*, *Otus vulgaris*, *Picus* sp.

species Sons., 1876.—Ward, 1895, 338 (syn. of *Gastrodiscus ægyptiacus*), in *Equus caballus*.

triangulare Johnston, 1904, 108–109, pl. 5, figs. 1–6 (in *Dacelo gigas* Bodd.).

trilobum (Rud., 1819) Dies., 1850a, 310; 1858e, 319 (in *Carbo comoranus*).—Brand., 1888a, 59; 1890a, 586 (in *Pelecanus crispus*).—Braun, 1893a, 903.—Stoss., 1897, 9 (in *Botaurus stellaris*).—Wedl., 1857, 255–257, pl. 2, figs. 20–22.

HEMIURIDÆ Luehe, 1901n, 394–403, 473–488; 1901o, 638–640.—Lander, 1904a, 3.—Looss, 1902m, 839, 848 (includes: *Hemiurus*, *Eurycælum*, *Accacælum*, *Derogenes*, *Pronopyge*, *Liocerca* (= *Liopyge*), *Haliopyge*).

HEMIURINÆ Looss, 1899b, 640; 1901, 438.—Luehe, 1901n, 481.—Nicoll, 1907, 84.—Odhn., 1905, 355–356, 357, 360, 364, 366.—Pratt, 1902, 889, 905 (includes: *Hemiurus*, *Lecithocladium*, *Pronopyge*, *Lecithochirium*, *Lecithaster*, *Liopyge*, *Derogenes*).

HEMIURUS Rud., 1809a, 38 [type *appendiculatus* by Stiles & Hass, 1898a, 90] (nec *Hemiurus* Gervais, 1855, mammal; nec *Hemiurus* Ridgway, 1888, Jan. 6, 511, bird).—Darr, 1902, 698.—Linst., 1904, 252.—Looss, 1899b, 527, 534, 551, 571, 582, 583, 638, 639, 640–641, 642; 1901, 194, 201, 207; 1901, 438; 1902m, 756, 781, 805, 830, 831, 839.—Luehe, 1900, 509; 1901, 394, 395, 396–401, 402, 474, 479, 480, 482, 484.—Nicoll, 1907, 84.—Odhn., 1905, 354, 355, 356, 359.—Pratt, 1902, 889, 906.—Stiles, 1901, 177, 185, 193.—Stiles & Hass., 1898a, 90–91, 96 (includes: *Dist.* (*Apoblema*), *Duj.*, *Apoblema* *Duj.*, *Eurycælum* Brock) (type *Fasc. appendiculata* Rud.).

HEMIURUS—Continued.

- 1845: Dist. (Apoblema) Duj., 1845a, 383, 389, 420 [tld. appendiculatum].
- appendiculatus* (Rud., 1802) Looss, 1899b, 641, 671; 1902m, 831.—Lander, 1904a, 4.—Luehe, 1901, 395, 396, 398, 400, 475.—Nicoll, 1907, 69, 70, 71, 72, 84, 86, 87, 88 (in *Anguilla vulgaris*, *Centronotus gunnellus*, *Cottus bubalis*, *Hippoglossus vulgaris*, *Pleuronectes limanda*, Pl. *platessa*).—Odhn., 1905, 349, 350, 351, 352 (in *Alosa finta*).—Staff., 1904, May 3, 484 (in esoph., stomach, Canada, of *Salmo salar* L., *Osmerus mordax* Mit., *Clupea harengus* L., *Gadus callarias* L., *Pollachius virens* L., *Ammodytes tobianus* L., *Anguilla anguilla* L., *Acanthocottus scorpius* L., *Hippoglossus hippoglossus* L., *Platysomatichthys hippoglossoides* Walb.); 1905, Apr. 11, 682, abundant in copepods (*Acartia*).—Stiles, 1901, 177.
- bothryophorus* (Olss., 1868) Looss, 1899b, 641, 728–729 (in *Alosa finta*), 741.
- communis* Odhn., 1905, 348, 350, 351 (in numerous Scandinavian marine fishes), 352, 353 (syn. Dist. *appendiculatum* Rud. of Olss., 1868).—Nicoll, 1907, 71, 86–88 (in *Ammodytes tobianus*, *Gadus aeglefinus*).
- crenatus* (Rud., 1802) Luehe, 1901n, 395, 397, 398, 399–401 (“nec Looss, 1899”) [the synonymy as given by Luehe is not altogether clear].—Lander, 1904a, 1–28, figs. 1–42 (anat.; syns. Fasc. *cren.* Rud., Dist. *cren.* Rud., Dist. *ocreatum* Olss., *Apoblema ocreatum* Juel, *Hemius ocreatus* Looss); 1904b–c; 1905a.—Nicoll, 1907, 84.—Odhn., 1905, 350, 352, 353, 356 (type of *Brachyphallus*).—Tennent, 1906, 666.
- crenatus* (Mol., 1859) Looss, 1899b, 641.—Luehe, 1901n, 399 (not of Rud.).
- digitatus* Looss, 1899b, 641, 729–731, fig. 48 (in *Sphyræna vulgaris*; Sawakin, Egypt, Jan.).—Darr, 1902, 659.
- excisus* (Rud., 1819) Looss, 1899b, 641.
- grandiporus* (Rud., 1819) Looss, 1899b, 641, 730.—Luehe, 1901, 401.—Nicoll, 1907, 84.
- lævis* (Lint., 1898) Looss, 1899b, 641.—Luehe, 1901, 401.—Nicoll, 1907, 84.
- levinseni* Odhn., 1905, 348–351, pl. 4, fig. 2 (in *Gadus saida* of East Greenland; also in *G. morrhua* s. ovak, *G. melanostomus*, *Cottus scorpius*, *Phycis blennoides*; West Greenland, North Denmark) (syns. Dist. *appendiculatum* Rud. of Olss., and Rud. of Levin.).
- lühiei* Odhn., 1905, 351, 352 (syns. Dist. *appendiculatum* Rud. of Olss., 1868; H. *stossichi* Luehe, 1901 [nec Mont., 1891]) (in *Clupea harengus*, *C. sprattus*, and ? *C. pilchardus*).—Nicoll, 1907, 72, 85–86, 87 (syn. of H. *stossichii*) (in *Clupea harengus*).
- microporus* (Mont., 1889) Looss, 1899b, 641.
- mollissimus* (Levin., 1881) Looss, 1899b, 641.
- monticellii* (Lint., 1898) Looss, 1899b, 641.
- ocreatus* (Mol. of Olss., 1868) Looss, 1899b, 641 (nec Rud.).—Lander, 1904a, 1, syn. of H. *crenatus* (Rud.).—Luehe, 1901n, 399.
- rufoviridis* (Rud., 1819) Looss, 1899b, 641, 730.
- sluiteri* (Brock, 1886) Looss, 1899b, 641.
- species* Braun, 1902b, 125.
- stossichi* (Mont., 1891) Looss, 1899b, 641.—Luehe, 1901n, 398–399, 400 (*stossichii*).—Nicoll, 1907, 84, 85, 88 (syn. of H. *lühiei*).
- stossichi* Luehe, 1901n (nec Mont., 1891) of Odhn., 1905, 351, 352 (renamed H. *lühiei* Odhn.) (in *Clupea pilchardus*).
- stossichii* Luehe, 1901n, 400, for *stossichi*.
- tornatus* (Rud., 1819) Looss, 1899b, 641.
- varicus* (Mueller, 1784) Looss, 1899b, 641.
- (HEMIURUS) Rud., see *Hemius*.
- scabrum* (Mueller, 1788) Looss, 1899b, 582.
- HEPASTOMUM Brand., 1888a, 15, for *Heptostomum*.
- HEPHOSTOMUM Burm., 1856a, 251 (“In anderen Fällen fehlen die Sauggruben am Munde, so bei *Diclidophora*, *Hexacotyle*, *Hephostomum*”).
- HEPTASTOMUM (for *Heptostomum* Schomburgk, 1844, 136).—Brand., 1888a, 15 (*Hepastomum*), 52; 1890a, 578.—Braun, 1893a, 884.—Dies., 1850a, 289, 418 (syn. Dist. Henle); 1858c, 314, 369–370 (m. *hirudinum*).—Fil., 1854a, 23.—Goldb., 1855, 19.—Mont., 1888a, 84, 92.—Tasch., 1879, 234.

HEPTASTOMUM—Continued.

hirudinum Schomburgk, 1844, 136 (in *Nephilis vulgaris*, *Clepsine complanatum*) (includes *Dist. hirudinis*.—Brand., 1888a, 13.—Braun, 1892a, 795.—Crep., 1846, 159.—Dies., 1850a, 418–419 (syn. *Dist. hirudinis* Henle, *D. tarda*: 1858e, 370, pl. 2 (in *Nephilis vulgaris*, *Clepsine complanata*).—Fil., 1854a, v. 15, 23.

HEPTOSTOMUM Schomburgk, 1844, 136. see also Heptastomum.

HERONIMUS MacCallum, 1902, 25 Oct., 632–636 (m. *chelydræ*) (monostome).

chelydræ MacCallum, 1902, Oct. 25, 632–636, figs. 1–2 (in *Chelydra serpentina*: Dunnville, Ontario: 1902, Dec. 30, 843–844: 1905, Aug., 62.

HETERACANTHUS Dies., 1836, 307–310 (*Axine* 1794, renamed, hence type *pedatus* = *bellones* renamed) [not *Heteracanthus* Newberry, 1889, fish]: 1850a, 425 (syn. of *Axine*).—Braun, 1890a, 518.—Crep., 1838, 83: 1839, 291.—Nord., 1840, 598.—Tasch., 1879, 255 (syn. of *Axine* *Abildg.*, 1794).

pedatus Dies., 1836c, 310–313, pl. 17, figs. 1–2 (*Axine bellones* *Abildg.* on *Esox belone* renamed): 1850a, 425 (syn. of *Axine bellones*).—Ben., 1858a, 1861a, 53 (syn. of *Ax. bell.*).—Crep., 1838, 83 (syn. of *Ax. platyura*).—Goto, 1894, 196 (*Ax. belones partim*).—Kroyer, 1846–53a, 273 (in *Belone rostrata* Fab.).—Nord., 1840, 598 (syn. *Ax. bell.*) (in *Esox belone*).—Sieb., 1839, 163.—Stoss., 1898, 14.—Tasch., 1879, 256 (syn. of *Ax. belones*).

[*politus* (fossil fish).]

sagittatus Dies., 1836, 313, pl. 17, figs. 10–12 (on *Esox belone*: [Europe]): 1850a, 425 (syn. of *Axine bellones*).—Ben., 1858a, 1861a, 53 (syn. of *Ax. bell.*).—Crep., 1838, 83 (syn. of *Ax. platyura*).—Goto, 1894, 196 (*Ax. belones* *Abildg. partim*).—Kroyer, 1846–53a, 273 (in *Belone rostrata* Fab.).—Nord., 1840, 598–599 (in *Esox belone*).—Sieb., 1839, 163.—Tasch., 1879, 256 (syn. of *Ax. belones* *Abildg.*).

HETEROBOTHRIUM Cerf., 1895m, 141, 142, 145–146 (m. *tetrodonis*): 1896, 548, 551–552.—Mont., 1903, 336 (subf. *Diclidophorinae*).—St.-Remy, 1898, 552.—Zool. Anz., 1895, 327.

tetrodonis Goto, 1894 Cerf., 1895m, 141, 142, 146 (in *Tetrodon* sp.: Japan): 1896, 548, 552.—Zool. Anz., 1895, 327.

tetodontis St.-Remy, 1898, 554 (= *Diclidophora tetodonis*, for *tetrodonis*).

HETEROCOTYLE Scott, 1904, 279 (m. *pastinacæ*).

pastinacæ Scott, 1904, 279, pl. 17, fig. 14 (in *Trygon pastinaca*: Dornoch Firth, Oct.).

HETERECOTYLEA Mont., 1905c, 68, apparently for *Heterocotylea*.—Massa, 1906, 43.

HETEROCOTYLEA Mont., 1892: 1899, 81, 88, 107 (*Eterocotylea*): 1903, 234: 1903c, 334–336: 1904 (II.10), 65–80, figs. 1–5 (remarks with reference to some species of): 1905c, 65–80, 5 figs.—Braun, 1893a, 889, 917: 1893b, 188: 1895b, 136.—Gamb., 1896a, 73.—Maclaren, 1904, 574, 579, 583, 586, 590, 591, 594, 596, 599.—Mueh., 1898, 17.—Pratt, 1900, 645, 646 (includes: *Temnocephalidae*, *Tristomidae*, *Monocotylidae*, *Polystomidae*, *Gyrodactylidae*, 647–654, 655–657, pls. 1–50, 658–661 (key to American species), 661–662: 1902, 890 (key).—Ward, 1903, 864.

HETEROKOTYLEA Schneidmuehl, 1896, 295, for *Heterocotylea*.

HETEROLOPE Looss, 1899b, 551, 651–652, 653, 655 (not *Heterolopa* Franzenau, 1884, Protozoon) (orig. species: *leptostoma* [tod.], *opisthotrias*, *aquans*, *caudata* (*ἔτερος*=anders: ἡ ὀπίσθη=wall, because of the structure of the skin: 1900, 605.—Braun, 1900h, 6, 11, 13: 1901e, 338 (= *Harmost.*): 1902b, 114 (syn. of *Harmost.*, Braun, 1899, 492).—Cohn, 1902, 880 (= *Harmost.*).—Luehe, 1900, 557.—Ofenheim, 1900, 183.

aquans Looss, 1899b, 652, 746–748, fig. 70 (in *Gerbillus ægyptius*).—Braun, 1900, 12.

caudata (Linn., 1873) Looss, 1899b, 652 (nec Mueller, Bosc. Polonio).

leptostoma (Olss., 1876) Looss, 1899b, 652, 746, 747, 748.

opisthotrias (Lutz, 1895) Looss, 1899b, 652.

HETEROLOPINE Looss, 1899b, 653, 655: 1900, 605.—Braun, 1900h, 13.

HETEROPHYES Cobbold, 1866a, 6 (m. *egyptiaca*=heterophyes) [this genus was probably published in some earlier paper].—Looss, 1902m, 786, 805, 808, 824; 1902n, 886–891 (revision of: 1903a, 899–900; 1905k, 56; 1907, Mar. 5, 488, 489.—Ward, 1903, 870.

1899: *Cotylogonimus* Luehe 1899, 538–539 (tod. heterophyes).

1899: *Cœnogonimus* Looss, 1899b, 585 (tod. heterophyes).

egyptiaca Cobbold, 1866a, 6 (Dist. heterophyes renamed).

aqualis Looss, 1902n, 888 (in dogs and cats; Egypt).

dispar Looss, 1902n, 888–889 (in dogs and cats).

fraternus (Looss, 1894) Looss, 1902m, 785, 808, 809, 838, 854; 1902n, 887; 1907, Mar. 5, 488 (in *Pelecanus onocrotalus*—Cairo, Egypt).

heterophyes (Sieb., 1852 (Stiles & Hass., 1900a, 563.—Looss, 1902m, 782, 785, 786, 808, 809, 838, 854; 1902n, 889; 1905, 111 (in man, cats, and dogs; Egypt), fig. 18.—Ward, 1903, 704; 1903, 864 (in *Homo*, 870 (includes: Dist. het. Sieb., 1852; *Mesogonimus* het. Rail., 1890; *Cœnogonimus* het. Looss, 1900; *Cotylogonimus* het. Luehe, 1900), 871.

inops Looss, 1902n, 887–888 (in *Pelecanus onocrotalus*; *Milvus aegyptius* s. *M. parasiticus*; Egypt).

pallidus Looss, 1902n, 889–891 (in *Milvus aegyptius* s. *parasiticus*; Egypt).

persicus Braun, 1901 (Looss, 1902m, 782, 785).

HETEROSTOMA Fil., 1837a, 338–340 (m. *echinatum* (*ἑτεροστώμα*, diversæ *στένα*, bocca: 1857c, 9 (Heterostomum).—Burm., 1856a, 250 (Heterostomum).—Dies., 1850a, 287, 301–303 (syn. Dist. Baer) (Heterostomum: 1855a, 399 (mentions only two species: *echinatum*, *ovatum*).—Erc., 1881e, 33; 1882a, 209.—Goldb., 1855, 16.—Moul., 1856a, 12, 16, 121.

1850: Heterostomum Dies., 1850a, 287, 301–303, for Heterostoma.

echinatum Fil., 1837a, 338–339, 340, figs. 16–18 (t. h. *Paludina impura*; Italy (an Agamodist.).—Dies., 1850a, 302 (Heterostomum: 1855a, 396; 1858d, 280 (to *Cercariaeum*).—Leidy, 1858a, 110; 1857, 202.—Moul., 1856a, 216 (pourrait bien être un individu libre provenant de la Cerc. paludidæ impuræ Fil.).

helicis aspersa Dies., 1850a, 302–303, based on Duj., 1845a, 472; 1855a, 398 (to *Cercariaeum helicis aspersæ*).

helicis aspersa Dies., 1855a, 398, for *helicis aspersæ* (to *Cercariaeum*).

helicis pomatix (Meckel, 1846) Dies., 1850a, 303; 1855a, 398 (to *Cercariaeum*).

limacis Dies., 1850a, 302 (based on Duj., 1845a, 472–475; 1855a, 397 (to *Cercariaeum*).

lymnæi Dies., 1850a, 302 (based on Duj., 1845a, 473; 1855a, 399 (syn. of *Cercariaeum lymnæi palustris*).

ovatum Dies., 1850a, 302 (Dist. luteum Baer, 1827, pl. 29, figs. 20–22, renamed) (in *Paludina vivipara*; *Regiomontii*; 1855a, 396 (in *Pal. vivip.*; 1858d, 279 (to *Cercariaeum*).—Mont., 1893, 190.—Moul., 1856a, 215 (syn. of Dist. luteum Baer).

HEXABOTHRIUM Nord., 1840, 600 (m. *appendiculatum*).—Cerf., 1899a, 351, 359, 371.—Dies., 1850a, 419, renamed *Onchocotyle*.—Stoss., 1898, 11.—Tasch., 1879, 252 (syn. of *Onchocotyle* Dies.).

appendiculatum Kuhn, 1829 (Nord., 1840, 601 (in *Squalus catulus*).—Dies., 1850a, 419 (type of *Onchocotyle*) (in *Scyllium catulus*, *Læmargus borealis*).—Tasch., 1879, 28 (to *Onchocotyle*).

HEXACOTYLA Blainv., 1828a, 570–571 (tod. *thynni*).—Dies., 1850a, 416 (renamed *Plagiopeltis*).

ocellatum (Rud., 1819) Blainv., 1828a, 571.—Baird, 1853a, 41 (= *Polyst.*).

thynni Delaroche, 1811 (Blainv., 1828a, 571.—Dies., 1850a, 417 (syn. of *Plagiopeltis duplicata*, type of *Plagiopeltis* (in *Thynnus branchypterus*, ad insulas Balearicas).

HEXACOTYLE Blainv., 1828a, 570 (same as *Hexacotyla*; both are used by Blainv.: *Hexacotyle* has been adopted as the Latin form by a number of authors).—Braun, 1890a, 413, 516, 517, 518, 523, 534, 537, 546; 1893a, 890.—Burm., 1856a, 251.—Cerf., 1895h, 920; 1896, 515; 1899a, 391.—Dies., 1850a, 409, 416 (of Blainv., syn. *Hexathyridium* Treutler), 421 (of Nord., syn. of *Diclibothrium* Leuck.).—Gamb., 1896a, 73.—Goto, 1893a, 798, 799; 1894, 215.—Hoyle, 1890, 539.—Mont., 1888a, 89, 100; 1892, Oct. 7, 213 (subg. of *Onchocotyle*; 1903, 336 (= *Plagiopeltis* (subf. *Plagiopeltina*).—Nord., 1840, 600.—Pratt, 1900a, 653, 657, fig. 38, on gills of marine fishes.—St. Remy, 1898, 550.—Tasch., 1879, 69; 1879, 239, 249–250 (syns. *Polyst. Roche*, *Plagiopeltis* Dies., 254 (of Nord., 1840, syn. of *Diplobothrium* Leuck.).

HEXACOTYLE—Continued.

1850: *Plagiopeltis* Dies., 1850a, 416–417 (duplicata = *thynni*).

acuta Goto, 1894a, 217–220 (in *Thynnus sibi*; Hagi and Osatsubé, (Hokkaidō)).—St.-Remy, 1898, 557.

elegans Nord., 1840, 597, 600 (*Diklibothrium crassicaudatum* renamed) (in *Acipenser stellatus*).—Dies., 1850a, 421 (syn. of *Diclibothrium armatum* Leuck.).—Tasch., 1879, 254 (syn. of *Diplobothrium armatum* Leuck.).

grossa Goto, 1894a, 220–222 (in *Thynnus* sp.; Misaki).—St.-Remy, 1898, 557–558.

lapridis Sars., —, —, Nord., 1840, 600 (in *Lampris gullatus*).

ocellatum (Rud., 1819) Blainv., 1828a, 571.—Dies., 1850a, 413 (to Polyst.).—Nord., 1840, 600 (in *Testudo orbiculata*).—Tasch., 1879, 252 (to Polyst.).

pinguicola (Treutler, 1793) Chiaje, 1833, 13 (= Polyst.).

thunni (Par. & Perugia, 1889) Goto, 1896, 352; 1899, 273–274, pl. 20, figs. 13–15.—Pratt, 1900, 657, fig. 38.—St.-Remy, 1898, 557.

thynni (Delaroche, 1811) Nord., 1840, 597, 600.—Braun, 1890a, 418, 537, 548.—Dies., 1850a, 417 (duplicata, type of *Plagiopeltis*).—Goto, 1899, 274.—Lint., 1901, 414 (in *Sarda sarda*), 446, figs. 296, 297, 298.—Par., 1894, 578; 1899, 3–4; 1902, 3 (in *Pelamys sarda*, Portoferraio; *Thynnus thynnus*, Elba).—Par. & Perugia, 1890, 7.—St.-Remy, 1898, 556–557.—Tasch., 1879, 250 (syns.: Polyst. th. Roche, *P. duplicatum* Rud., Hex. th. Blainv., *Plagiopeltis* dup. Dies.) (in *Thynnus branchypterus*, *Pelamys sarda*; Napoli).

venarum (Treutler, 1793) Blainv., see Dies., 1850a, 410 (to Hexathyridium).

HEXACOTYLIDÆ Mont., 1899, —; 1903, 336 (subf.: *Diplobothrinae* (g. *Diplobothrium*); *Plectanocotylinæ* (g. *Plectanocotyle*, *Phyllocotyle*)); 1905, 77, 78.

HEXASTOMA Rud., 1809a, 38, 451–457 (subg. of Polyst. containing: *integerrimum* [type by inclusion], *pinguicola*, (genus in Cuv., 1836a, 264).—Dies., 1850a, 409 (syn. of *Hexathyridium* Treutler).—Kuhn, 1829, 358 (for Polyst. Rud.).—Thon, 1830, v. 7, 341.—Wallenstedt, 1847, 7.

integerrimum (Frœlich, 1791) Rud., 1809a, 451.

pinguicola (Treutler, 1793) [Cuv., 1836a, 264].—Dies., 1850a, 410 (to Hexathyridium).—Dolley.

venarum (Treutler, 1793) [Cuv., 1836a, 264 (to Hexathyridium)].—Dies., 1850a, 410 (to Hexathyridium).

HEXOSTOMA Rafinesque, 1815, 151, n. n. for Polyst. Roche, hence type *thynni*.

HEXATHIRIDIUM Blainv., 1821a, 144–145 (see *Hexathyridium*); 1824a, 516; 1828a, 571–572.

venarum (Treutler, 1793) Blainv., 1828a, 572.—Joy, 1835a, 505.—See *Hexathyridium*.

HEXATHYRIDIA Rafinesque, 1815, 151 (genus of *Fasciolaria* with Polyst. Zed. as syn.) for *Hexathyridium*.

HEXATHYRIDIDIUM Treutler, 1793, iv, 19–22 (type by first-species rule, *pinguicola*: this seems to be taken as type by authors; see, for instance, Braun, 1889a, 317).—Blainv., 1821a, 144–145 (*Hexathiridium*): 1824a, 516 (“Je doute beaucoup que ce genre puisse être regardé comme véritablement intestinal; il est extrêmement rapproché du polystome de Delaroche; aussi pensais-je qu’il a été décrit à l’envers, ce que l’on voit dans ma définition des caractères de l’ordre”).—1828, 571–572.—Braun, 1890a, 518; 1893a, 887, 891, 892, 894.—Burm., 1856a, 251 (*Hexathiridium*).—Cerv., 1899a, 351, 371.—Dav., 1877a, lxxx.—Dies., 1850a, 288, 409–410, 412 (Blainv., syn. of Polyst. Zed.); 1858e, 314, 368.—Encycl. méthodique, Par., v. 2, 455.—Goldb., 1855, 17.—Hoyle, 1890, 539 (probably a syn. for Polyst.).—Jørdens, 1802, 66.—Lamouroux, 1825, 193.—Leuck., 1863, 526; 1867, v. 2 (1), 150; 1868, v. 2 (2), 264.—Looss, 1902m, 756.—Mont., 1888a, 84 (*Hexathiridium*).—90.—Nord., 1840, 601 (*Hexathiridium*).—Rud., 1801a, 58; 1809a, 22.—Stess., 1898, 11.—Tasch., 1879, 324, 251 (syn. of Polyst. Zed.).—Thon., 1830, v. 7, 341–342 (*Hexathiridium*).

1809: *Hexastoma* Rud., 1809a, 38, 451–457 (type by inclusion *pinguicola*).

1815: *Hexathyridia* Rafinesque, 1815, 151.

1821: *Hexathiridium* Blainv., 1821a, 144–145.

1888: *Hexathyridium* Mont., 1888a, 84.

1856: *Hexathiridium* Burm., 1856a, 261.

affine Dies., 1850a, 410 (t. h. *Bombinator igneus*; Berlin).—R. Bl., 1895, 104.—Schmitz, 1826, 15, figs. 1–13.

HEXATHYRIDIDIUM—Continued.

appendiculatum (Kuhn) Nord.—Tasch., 1879, 253 to *Onchocotyle* (Kuhn) [Nord. uses *Hexabothrium* app., not *Hexathyridium* app.].

integerrimum (Froelich, 1791) Blainv., 1828, 572.—Baird, 1853a, 41 (= *Polyst. Rud.*).—Dies., 1850a, 412 (to *Polyst.*).—Stoss., 1898, 10.

pinguicula Treutler, 1793, iv, 19–22, pl. 3, figs., 7–11 (t. h. Homo).—Blainv., 1828, 572.—Aitken, 1866, 804, 841; 1872, 146, 207; 1874, 58.—R. Bl., 1888a, 597.—de Bonis, 1882, 180.—Braun, 1883a, 69–70; 1895b, 155.—Brera, —, 100, pl. 1, fig. 28.—Cerf., 1899a, 351.—Cobbold, 1866, 7; 1879b, 36.—Dav., 1877a, lxxxii.—Dies., 1850a, 409–410 (includes: *Polyst. ping. Zed.*, *Linguatula ping. Lamarck*, *Hexast. ping. Cuv.*); 1858c, 368 (to *Polyst.*).—Dunglison, 1893, 529, 821.—Hackley, 1886, 519.—Hoyle, 1890, 538.—Jærdens, 1802, 66, pl. 6, figs. 3–5.—Kholodk., 1898, 26, pl. 10, fig. 24.—Kuech., 1855, 464.—Leuck., 1863a, 526, 585, fig. 195.—Moniez, 1896, 108.—Mosler & Peiper, 1894, 186.—Mont., 1888, 90.—Rud., 1809a, 455 (t. *Polyst.*).—Verrill, 1870, 171.—Ward, 1895, 328 (in *Homo*).—Weinland, 1859, 281.

venarum Treutler, 1793, iv, 23–25, pl. 4, figs. 1–3.—Aitken, 1866, 804, 841–842; 1872, 146, 206; 1874, 58.—Bierner, 1863a, 393.—Blainv., 1828a, 572 (*Hexathyridium*).—R. Bl., 1888a, 596, 597; 1891, 605.—de Bonis, 1882, 181.—Braun, 1883a, 69; 1895b, 139; 1903, 3 ed., 150 (from *Vena tibialis antica*, probably young *F. hepatica*. Duval found adult *F. h.* in *Vena portarum* and other veins at Rennes (1842), and Vital (1874) describes same kind of case from Constantine); 1906, 155 (in *Homo sapiens*).—Bremser, 1824, 327–329, pl. 9, fig. u.—Cerf., 1899a, 351.—Cobbold, 1866, 7; 1879b, 36.—Crep., 1839, 290.—Dav., 1877, lxxxii, 329–330, figs. 15, 42.—Dies., 1850a, 410 (includes *Polyst. ven. Zed.*, *Polyst. sanguicula delle Chiaje*, *Linguatula ven. Lamarck*, *Hexast. ven. Cuvier*, *Hexacotyle ven. Blainv.*); 1858c, 368.—Duval, 1842a, 771, 772.—Duj., 1845a, 321.—Dunglison, 1893, 529, 821.—Hackley, 1886, 519.—Hahn & Lefèvre, 1884a, 540–541.—Hémont, 1827, 16.—L'Herminier, 1826, 13.—Hoyle, 1890, 538.—Joy, 1835a, 505.—Kholodk., 1898, 26, pl. 10, fig. 23.—Kuech., 1855, 464.—Leuck., 1863a, 526, 575, 585, fig. 194.—Moniez, 1896, 108.—Mont., 1888, 90.—Mosler & Peiper, 1894, 186.—Rud., 1809a, 456 (to *Polyst.*, as sp. inq.).—Sieb., 1839, 164.—Stiles, 1898a, 48.—Verrill, 1870, 171.—Ward, 1895, 328 (in *Homo*); 1903, 866.—Weinland, 1859, 281.

HEXATHYRIDIDIUM Mont., 1888, 84, for *Hexathyridium*.

HEXATYRIDIDIUM Burm., 1856a, 251 (see *Hexathyridium*).

HIRUDELLA Poir., 1885, 5, 7 [not Muenster, 1842, leech], see *Hirudinella*.

HIRUDINELLA [Garsin, 1730, 58–59, fig., prelinnean (m. marina); 1735, 261, pl. 4, figs. 1–3].—Blainv., 1824a, 518 (“*hirudinelle*”; “*Jadmets ce genre pour les fascioles cylindriques qui ont quelque ressemblance avec les sangsues, et entre autres le fasc. clavata Linn.*”); 1828, 586 (type *clavata*) [not *Hirudinella* Gray, 1850, mollusk; not *Hirudinella* Muenster of Dies., 1850a, leech].—Baird, 1853a, 59.—Buttel-Reepen, 1902, 168.—Darr, 1902, 644, 648, 658, 662–699.—Dies., 1850a, 292.—*Encycl. méthodique*, Par., v. 2, 456.—Lamoureux, 1825, 241.—Planque, —, 993, 221.—Poir., 1885, 5, 7 (*Hirudella*) [not *Hirudella* Muenster, 1842, renamed *Hirudinella* by Dies., 1850].—Stiles, 1901, 194 (type *Fasc. clavata*).

1885: *Hirudella* Poir., 1885, 5, 7 [not Muenster, 1842], for *Hirudinella*.

[*angusta* Muenster, 1842, 98, pl. 1, fig. 5.—Dies., 1850a, 471; 1859, 511.—Pictet, —, 457.—A leach.]

clavata (Menzies, 1791) Blainv., 1828, 586.—Baird, 1853a, 59 (includes *H. marina* Garsin, *Fasc. clav. Menzies*, *F. scombr. pelamidis Tilesius*, *F. coryphæne Bosc*, *Dist. clav. Rud.*).—Buttel-Reepen, 1902, 167, 168, 171, 185, 190, 191, 193, 195, 198, 202, 206, 209, 212, 214, 218 (syn. of *Dist. ventricosum*).—Darr, 1902, 649, 652, 657, 658, 667, 668, 669, 670, 676, 678, 680, 682, 687, 689, 690, 692, 696, 698–699, 1 fig., pl. 34, figs. 16–25, pl. 35, figs. 26–34.

ingens (Moniez, 1886) Darr, 1902, 687, 688.

marina Garsin, 1730a, 387–394, pl. 1, fig. 2 (in *Scomber pelamys*); 1732a, 43–44, 1 pl., 3 figs.—Baird, 1853a, 59 (= *clavata*).—Buttel-Reepen, 1900a, 586; 1902, 166, 168, 194, pl. 6, fig. 1.—Cobbold, 1879b, 461.—Darr, 1902, 663, 664.

[*tenuis* Muenster, 1842, 99.—Dies., 1850a, 471 (a leach); 1859, 511.—Pictet, —, 457.]

ventricosa (Pallas, 1774) Baird, 1853a, 59–60 (includes *Fasc. ventr. Pallas*, *F. fusca Bosc*, *F. coryphæne hippuridis Tilesius*, *Dist. coryphæne Rud.*, *D. clavatum Owen*).

HIRUDO Linn., 1758a, 644, 649 (type by Linnæan rule, *medicinalis*).—Several species of this genus have been placed in the trematodes; the genus is now confined to the leeches.—Dies., 1850a, 318 (of Braun, syn. of ?*Diplodiscus*), 425 (of Abildg., syn. of *Nitzschia* Baer), 426 (of Mueller, syn. of *Phylline* Oken), 427 (of Kroyer, syn. of *Udonella* Johnston), 433 (of Braun, syn. of *Astacobdella* Vallot), 439 (of Linn., syn. of *Ichthiobdella* Blainv.), 445 (of Mueller, syn. of *Malacobdella* Blainv.), 446 (of Mueller, syn. of *Clepsine* Savigny), 456 (auct., syn. of *Nephelis* Savigny), 461 (auct., syn. *Aulost. Moquin-Tandon*), 462 (auct., syn. of *Hæmopsis* Savigny et Moquin-Tandon), 465–471 (of Rai et Linn., syns. of *Sanguisuga* Savigny; *Iatrobella* Blainv.), 567 (of La Martinière, syn. of *Tetrahynchus* Rud.), 583 (of Linné, syn. of *Schistocephalus* Crep.).

fasciolaris Mueller, 1788b, pl. 54, figs. 1–3 (is included in *Fasc. anatis* Gmelin, 1790a, 3055).—Dies., 1850a, 335 (syn. of *Dist. ovatum* Rud.).

grossa Mueller, 1788, 21–22, pl. 21.—Bruguière, 1791a, pl. 52, figs. 6–8.—Dies., 1850a, 445 (to *Malacobdella*).—Gmelin, 1790a, 3098.

hippoglossi Mueller, 1776a, 220 (t. h. *Hippoglossus*; Denmark); 1788a, 18, pl. 54, figs. 1–4.—Baer, 1827b, 676, pl. 32, figs. 5–6.—Dies., 1850a, 426 (to *Phylline*).—Fabricius, 1780a, 322, pl. 1, fig. 8.—Gmelin, 1790a, 3098.—Leuck., 1842a, 11.—Oken, 1815 (to *Phylline*).

sturionis Abildg., 1794b, 55–56, pl. 6, fig. 1, a–c (in Stören).—Cuvier, —, — (to Trist.).—Dies., 1850a, 426 (syn. of *Nitzschia elegans* Baer).—Gmelin.

tuba Braun, 1805, 49, pl. 5, figs. 5–8 (see Rud., 1809a, 348 = *Amphist. subclavatum*).—Dies., 1850a, 318 (syn. of *Diplodiscus subclavatus* Dies.).

HISTRIOBDELLA Ben., 1858i, 2 pls.

HISTRIONELLA Bory de St. Vincent, 1823b, 356; 1825b, 252–253.—Braun, 1893a, 884.—Burm., 1856a, 250.—Dadai, 1888f, 84, 85; 1888g, 107.—Dies., 1850a, 286, 294 (of Bory syn. of *Malleolus* Ehrenberg), 299–300 (of Bory & Ehrenberg, includes Cerc. Nitzsch, *Brachionus* Schrank); 1855a, 378 (eyes), 392, 393 (syn. *Brachionus* Schrank); 1858d, 267.—Goldb., 1855, 16.—Moul., 1856a, 121, 124.—Nord., 1840, 617, 631.—Pag., 1857, 5, 24.—Wagener, 1857, 24.

—— Hemprich & Ehrenberg, 1828a, Entozoa, not paged, n. g. cf *Cercozoorium*, type evidently ephemera; includes also alata.

alata Hemprich & Ehrenberg, 1828a (in water at Berlin, Germany).—Dies., 1850a, 300 (sp. inq.); 1855a, 392–393 (*Hab. primitivum* ignotum); 1858d, 268 (free; Berlin).

annulicauda Bory, 1825b, 253.—Dies., 1850a, 299 (syn. of *Histrionella lemna* Ehrenb.).

bilineata (Haldemann, 1840) Dies., 1850a, 300 (in Linnæus catascopium; Penn.); 1855a, 393 (in Lymnæus cat.); 1858d, 269 (in Lymn. cat.; Penn.).

echinocerca (Fil., 1857) Mont., 1888, 193, 194.—Dadai, 1888f, 85; 1888g, 108.—Dies., 1858d, 267–268 (larva of *Dist. appendiculatum* Rud.) (in *Buccinum linnei*; Genoa).

elegans (Mueller, 1855) Dies., 1858d, 269 (syn. *Cerc. elegans* Mueller in Valette, 1855) (free).—Dadai, 1888f, 85, 86; 1888g, 108, 109.—Mont., 1888, 193, 194.

ephemera (?Nitzsch, 1807) Hemprich & Ehrenberg, 1828a, pl. 6, fig. 3.—Dies., 1850a, 299 (includes Cerc. V. Baer, 1827, 625, pl. 31) (in *Paludina vivipara*; Regiomontii; *Planorbis corneus*; April. Halle, Berlin); 1855a, 392 (in Pl. corn., Pal. vivip.); 1858d, 244 (of Sieb. syn. of *Glenocerc. flava* Dies.), 267 (syn. of Cerc. ephemera Wagener) (of Ehrenberg larva of *Dist. trigonocephalum* Rud.) (in Pl. corn., Pal. vivip.).—Moul., 1856a, 204 (to Cerc.).—Sieb., 1843.

fissa Bory de St. Vincent, 1824, 456; 1825b, 252 [see Lamouroux, 1824a].—Dies., 1850a, 295 (syn. of *Malleolus furcatus*).—Moul., 1856a, 168 (is not syn. of Cerc. furcata).

inquieta (Mueller, 1786) [Bory de St. Vincent, 1825b, 253 (*Histrionella inquieta*)].—Dies., 1850a, 300 (sp. inq.) (in aqua marina); 1855a, 393 (*Hab. primitivum* ignotum); 1858d, 268–269 (free, Hafnia).—Pag., 1862, 298.

lemna (Mueller, 1773) Hemprich & Ehrenberg, 1828.—Dies., 1850a, 299–300 (includes: *Brachionus proteus* Schrank, Cerc. major Nitzsch, *Histr. annulicauda* Bory) (in Lymnæus stagnalis, *Planorbis carinatus*, P. corneus); 1855a, 392 (in Lymn. stag. et Pl. corn.); 1858d, 268 (in Pl. carinatus, P. corn., Lymn. stag.).

HISTRIONELLA—Continued.

melanoglena Dies., 1855a, 393 (*Melanoglena bipunctata* Eichwald renamed) (Hab. primitivum ignotum); 1858d, 245 (to *Glenocerc.*).

[*pupula* Bory de St. Vincent. 1825b, 252 (*Histrionelle poupée*, *Enchelis pupula* Mull.).]

setosicauda Dadaï. 1888f, 84–86, pl. 3, figs. 11, 13; 1888g, 107–109, pl. 3, figs. 11, 13.—Mont., 1888, 77 (*setosicaudata*); 1888, 193, 194 (*setosicaudata*).

setosicaudata Mont., 1888, 77; 1888, 195, 194 (for *setosicauda*).

HISTRIONELLINA Dies., 1858d, 269 (type?).

erythrops (Dies., 1855) Dies., 1858d, 270 (in *Paludina impura*; *Regiomonti*).

fissicauda Dies., 1858d, 269–270 (syn. *Cerc. ocellata* Valette) (in *Lymnæus stagnalis*; Berlin).—Linst., 1878.

melanops (Dies., 1855) Dies., 1858d, 270 (syns. *Cerc. melanops* Dies.) (in *Paludina impura*; *Regiomonti*).

HOLOSTOMOM Erc., 1881e, 88, for *Holostomum*.

HOLOMETRA Looss, 1899b, 564 (tod. exigua): ὅλος, entire; ἡ μήτηρ, uterus.—Braun, 1902b, 5.—Pratt, 1902, 888, 896.—Rail., 1900, 242.

exigua (Mueh., 1898) Looss, 1899b, 564, 678–679, fig. 4 (in *Circus rufus*; Adelen Island, Nile, near Heluan).—Stoss., 1904, 11.

HOLORCHIS Stoss., 1901, 93 (5) (tod. m. pycnopus).

pycnopus Stoss., 1901, 92–93 (rep. 4–5), pl. 6, fig. 10 (in *Sargus salviani*; Trieste).

HOLOSTOMATIDÆ Gamb., 1896, 63, 67, 73.

HOLOSTOMEÆ Brand., 1888a, 1–68, 72 pp. (family); 1889d, 241–245; 1890a, 590.

HOLOSTOMIDÆ E. Bl., 1847, 317.—R. Bl., 1888a, 541 (embraced in *Distomiens*).—Brand., 1888a, 63; 1890a, 549–604, pls. 39–41; 1891a, 415–416.—Braun, 1883a, 58; 1890a, 515; 1892a, 570, 696, 707, 774, 775; 1893a, 887, 890, 895, 899, 900; 1894l, 165–167; 1894m, 755; 1894k, 680–682 (development); 1895b, 136.—Heider, 1900, 21.—Hoyle, 1890, 539 (*Holost.*, *Hemist.*, *Eustemma*).—Jackson, 1888, 654 (*Holost.*: larval forms *Tetracotyle*, *Diplost.*, *Hemist.*).—Johnston, 1904a, 108–116 (from Australian birds), pls. 5–6; 1904b; 1904c, (VII. 12), 759–760; 1905 (I. 31), 13.—Looss, 1899b, 541, 543.—Mont., 1888a, 91; 1891, 109, 110; 1892, Oct. 7, 214 (f. of *Malacocotylea*).—Mueh., 1898, 18.—Pratt, 1902, 889–890, 908 (includes *Cyathocotylinae*, *Diplostominae*, *Hemistominae*, *Holostominae*).—Rettger, 1897, 224–225.—Schneidemuehl, 1896, 295.—Stiles & Hass., 1898a, 87.—Stoss., 1898, 20.

HOLOSTOMINÆ Mont., 1892, Oct. 7, 214 (subf. of *Holostomidæ*).—Braun, 1893a, 890, 895, 903.—Mueh., 1898, 19.—Pratt, 1902, 890 (*Holostomum*).

HOLOSTOMA, see *Holostomum*.

HOLOSTOMUM Nitzsch, 1819, 399–401 (type by inclusion variable=*Planaria strigis*, type of *Strigea*): 1819, 35.—Baillet, 1866b, 99, 106.—Blainv., 1824a, 518 (*holostome*); 1828, 583–584.—E. Bl., 1847, 318.—Brand., 1888a, 8, 9, 10, 12, 13, 14, 17, 49, 50, 63; 1888b, 424–426; 1888, 954; 1889a, 67–68; 1890a, 576, 579, 590 (of Rud.).—Braun, 1883a, 40; 1892a, 570, 581, 600, 681, 715, 748, 792, 793, 794, 795, 797; 1893a, 844, 872, 879, 884, 886, 887, 890, 894, 895, 900, 902, 903, 905, 917; 1894, 166; 1895b, 132, 136.—Burm., 1837, 530; 1856a, 250.—Carus, 1863, 479.—Crep., 1839, 286, 287.—Dav., 1877, lxxix.—Dies., 1836, 237; 1850a, 287, 305 (of Nord., syn. of *Diplost.*), 307 (of Nitzsch pars, syn. of *Hemist.*), 312–317 (of Nitzsch syns.: *Plan.*, *Goeze*, *Festuc.*, *Schrank*, *Fasc.*, *Gmelin*, *Strigea* *Abildg.*, *Amphist.*, *Rud.*); 1858e, 312, 319–322.—Duj., 1845a, 364–366.—Dunglison, 1893, 533.—Eichwald, 1829a, 248.—Fischer, 1840, 156.—Fischder., 1902a, 6, 7 =*Strigea*; 1903h, 487 (=Amphist. capite discreto), 490 (syn. of *Strigea*), 507.—Gamb., 1896, 73.—Goldb., 1855, 17.—Hoyle, 1890, 539.—Jackson, 1888, 643, 648, 652, 653, 654 (*Tetracotyle*, *Diplost.*: larval forms).—Johnston, 1904, 3 n. Australian sp. from birds.—Lamouroux, 1822a, 194, 297 (syn. of *Amphist.*).—Leuck., 1863, 452, 524.—Looss, 1902m, 438, 439.—Luehe, 1901, 175.—Macleay, 1886, 342.—Mont., 1888, 8, 34, 63, 68, 71, 72, 83, 84, 91, 95, 104; 1891, 101, 105, 109; 1892, Oct. 7, 214 (gen. of *Holostominae*); 1892, 709.—Moul., 1856a, 12, 15.—Nord., 1840, 626, 627–628.—Par., 1887, 329.—Pratt, 1902, 890, 908.—Schneidemuehl, 1896, 295.—Stoss., 1898, 51.—Tasch., 1879, 233.—Villot, 1898, 538; 1878, 19.—Wallenstedt, 1847, 7.—Wolf, 1903, 607.—See *Strigea*.

HOLOSTOMUM—Continued.

- alatum* (Goeze, 1782) Nitzsch, 1819, 399, 400, pl. 4, figs. 1-4 (syns. Plan. al. Rud., Plan. al. Geze, Dist. vulpina Abildg.).—Baillet, 1866b, 106-107 (syn. Hemist. al.).—Ben., 1858a, 1861a, 179.—Blainv., 1828, 583.—E. Bl., 1847, 318-320, pl. 10, fig. 1.—Brand., 1888a, 10, 12, 38, 39, 60 (to Hemist.).—Cobbold, 1879b, 300.—Crep., 1829b, 66; 1839, 287.—Dav., 1877a, lxxix.—Dies., 1850a, 308 (to Hemist.).—Duj., 1845a, 367, pl. 8, fig. D.—Dunglison, 1893, 533.—Gurlt, 1831a, 375, pl. 8, figs. 39-40.—Macleay, 1886, v. 10, 342.—Mehlis, 1831, 175.—Mont., 1891, 105.—Nord., 1840, 628 (syn. Dist. al. Rud.).—Stoss., 1890, 131.—Verrill, 1870, 173.—Ward, 1895, 341 (in Canis familiaris).
- anatis nigra* Dies., 1858e, 322, sp. inq. (based on Bellingham, 1844a, 340) (in Anas (Oidemia) nigra).—Brand., 1888a, 68 (syn. of H. crenulatum Cobbold); 1890a, 596.—Braun, 1893a, 903.—See also crenulatum.
- auritum* Duj., 1845a, 370 (t. h. Strix flammea; Rennes).—Brand., 1888a, 12.—Dies., 1850a, 312 (to Hemist.).
- bellinghamii* Cobbold, 1860a, 45, falconum renamed (in Falco nisus, F. rufus).—Brand., 1888a, 68 (in F. nisus, F. rufus); 1890a, 596 (syn. H. falconum Dies.).
- brevicaudatum* Nord., 1832a, 52-53 (t. h. Barbus communis; Berlin); 1840, 618.—Braun, 1892a, 795.—Crep., 1839, 287.—Dies., 1850a, 306 (to Diplost.).—Duj., 1845a, 380.—Gescheidt, 1833a, 430.—Moul., 1856a, 220.—Steenstrup, 1842, 58.
- bulbosum* Brand., 1888a, 67; 1890a, 595 (in Geronticus albicollis, Nauclerus furcatus).—Braun, 1893a, 903.
- bursarium* Nitzsch, in Giebel, 1857, 265 (t. h. Falco peregrinus).
- bursigerum* Brand., 1888a, 65 (in Larus ridibundus; Wien. Mus.); 1890a, 592, pl. 41, figs. 15-18.—Braun, 1892a, 586; 1893a, 903.—Stoss., 1891, 216; 1892, 65; 1898, 22.
- cinctum* Brand., 1888a, 34, 67 (in Ardea sp.; by Natterer); 1890a, 564, 594, pl. 41, figs. 21-22.—Braun, 1893a, 903 (Brazil).
- clavus* Mol., 1858, 128 (t. h. Gadus merlucius; Patavii): 1861, 196-197, pl. 1, figs. 9-11.—Brand., 1888a, 67; 1890a, 595.—Braun, 1893a, 874, 903.—Cobbold, 1879b, 462.—Dies., 1858e, 322 (in G. merl.).
- coniferum* Mehli in Crep., 1846, 138 (t. h. Colymbus cristatus).
- cornu* Nitzsch in Rud., 1819a, 89, 357 (t. h. Ardea cinerea) (to Amphist.).—Brand., 1888a, 66; 1890, 594 (in Ardea sp.).—Braun, 1893a, 879-903; 1894k, 682.—Dies., 1850a, 315 (syn. Amphist. cornu Rud nec Dies.). 1858e, 321 (Amphist. cornu Bellingham) (in Ardea cinerea, A. herodias, A. stellaris).—Duj., 1845a, 374.—Linst., 1877, 187.—Schlotthauber, 1860, 129.—Stoss., 1895, 37; 1897, 9; 1898, 22 (in Ardea cinerea, Rovigno; A. purpurea; Monfalcone).—Wedl, 1857, 253-254, pl. 1, fig. 19.—Westrumb, 1823, 394.—Wolffhugel, 1900, 9, 12.—Reported also for Accipiter nisus, Ardea garzetta, A. purpurea, Ciconia alba.
- cornucopia* Mol., 1859, 287-288 (t. h. Strix flammea; Batavii); 1861, 196, pl. 1, fig. 8.—Brand., 1888a, 68 (in Strix otus); 1890a, 596 (in Otis vulgaris).—Braun, 1892a, 585, 610, 674, 784, 785, 786, 787, 792, 793, 794; 1893a, 903.—Dies., 1859c, 424 (cornucopiæ).—Jackson, 1888, 652.—Linst., 1877, 188-191, pl. 13, fig. 20, pl. 14, figs. 29-30; 1885, 253-254, pl. 15, fig. 31; 1890f, 186 (cornucopiæ); 1906, 14 (in Strix flammea).—Piana, 1898, 9.—Also reported for Ægoli otus.
- cornucopiæ* Dies., 1859c, 424, for cornucopia.
- cornutum* (Rud., 1809) Duj., 1845a, 372-373.—Brand., 1888a, 68 (syn. H. multilobum Cobbold) (in Charadrius pluvialis); 1890a, 596 (of Dies.).—Braun, 1893a, 903.—Dies., 1850a, 316-317.
- corones* Dies., 1858e, 322 (in Corvus corone; Ireland).—Brand., 1888a, 68 (syn. of H. dubium Cobbold); 1890a, 596.—Braun, 1893a, 903.
- crenulatum* Cobbold, 1860a, 47 (in Anas nigra; Ireland).—Brand., 1888a, 68 (syn. H. anatis nigra Dies.). (in Anas oidemia); 1890a, 596 (in Oidemia nigra).
- cuticola* Nord., 1832, 43, 49-52, pl. 4, figs. 1-4 (in Cyprinus carpio, C. brama, C. blicca, C. idus, C. rutilus, C. erythrophthalmus), belongs to Cryptostomum; 1840, 618, 628.—Brand., 1888a, 11, 15.—Braun, 1892a, 795.—Crep., 1839, 287; 1846, 154.—Dies., 1850a, 306 (to Diplost.).—Duj., 1845a, 379-380.—Gescheidt, 1833a, 429.—Kroyer, 1838-40a, 21, 578; 1846-53a, 388, 399, 434, 446, 462; 1852-53a, index (cuticula, 1250) (in Perca fluviatilis L., Abramis brama L., A. blicca Bl., Leuciscus erythrophthalmus L., L. rutilus L., L. idus L.).—Moul., 1856a, 217-218, 220 (in Perch, cyprins).—Pavesi, 1881, 615, 616 (in Cobitis tania).—Steenstrup, 1842, 58.—Villot, 1898, 541.—Waldenburg, 1860, 5, 11.—Also reported for Cyprinus vimba.

HOLOSTOMUM—Continued.

- cuticula* Kroyer, 1852-53a, 1250, for *cuticola*.
- denticulatum* (Rud., 1819) Duj., 1845a, 372, pl. 8, fig. a, 1, 2.—Brand., 1888a, 12.—Dies., 1850a, 311 (to Hemist.) (in *Alcedo ispida*; *Rhedoni*).—Villot, 1878, 19; 1898, 538.
- dubium* Cobbold, 1860a, 45 (in *Corvus corone*).—Brand., 1888a, 68 (syn. *H. corones* Dies.); 1890a, 596 (in *C. corone*).
- ellipticum* Brand., 1888a, 67 (in *Bubo magellanicus*; by Natterer); 1890a, 595.—Braun, 1893a, 903.—Linst., 1906, 15.
- erraticum* (Rud., 1809) Duj., 1845a, 373-374.—Baillet, 1866b, 107.—Brand., 1888a, 59 (of Linst., 1877c) (syn. of Hemist. *pilcatum*), 63-64; 1890a, 571, 586, 591, pl. 41, figs. 3-4.—Braun, 1892a, 797; 1893a, 844, 874, 879, 903 (Brazil); 1894, 166.—Dies., 1850a, 313 (syns. *Strigea anatis tadornæ* Viborg, *S. candida* Abildg., *Amphist. anatis tadornæ* Rud., *A. isost. Rud.*, *A. erraticum* Rud., *H. macrocephalum* Crep.); 1858c, 320 (syn. *Amphist. isostomum* Bellingham) (in *Anas boschas fera*, *A. ferina*).—Erc., 1881e, 48-54, 88 (*Hollostomum*); 1882a, 284-290, 324.—Kowal., 1894, 2.—Linst., 1877, 188, pl. 13, figs. 18-19; 1906, 14 (in *Strix otus*, *Falco albicilla*).—Mont., 1888a, 71.—Olss., 1893, 8.—Par., 1899, 4; 1902, 4 (in *Querquedula circia*; *Elba*).—Piana, 1898, 4.—Also reported for *Alca torda*, *Anas boschas*, *A. crecca*, *A. fusca*, *Ascolopax gallinax*, *Colymbus arcticus*, *C. balticus*, *C. septentrionalis*, *Fuligula cristata*, *F. ferina*, *F. marila*, *Harelda glacialis*, *Limosa melanura*.
- eustemma* Brand., 1888a, 65-66 (in *Accipiter pileatus*; Brazil); 1890a, 593, pl. 41, fig. 25 (syn. *Eustemma caryophyllum* Dies.).—Braun, 1893a, 903.
- excavatum* (Rud., 1803) Nitzsch, 1819, 399, figs. 5-7 (in *Ardea nycticorax*).—Ben., 1868, 296, 300, pl. 2, figs. 6-8.—Blainv., 1828, 584.—Brand., 1888a, 12.—Braun, 1893a, 903; 1894k, 682.—Dies., 1850a, 309 (to Hemist.).—Duj., 1845a, 375.—Gamb., 1896, 63.—Leuck., 1879, 14; 1886d, 11.—Looss, 1892, 14.—Nord., 1840, 628.
- excisum* Linst., 1906, 12-15, pl. 1, figs. 14-16 (in *Ægolius otus*, *Strix flammea*).
- exiguum* Mehlis in Crep., 1846, 145 (t. h. *Cygnus musicus*).—Also reported for *Mergus merganser*, *M. serrator*.
- falconum* Dies., 1858e, 322, sp. inq. (based on Bellingham, 1844, 39) (in *Falco nisus* et *F. rufus*; *Hibernia*).—Brand., 1888a, 68 (syn. of *H. bellinghamii* Cobbold); 1890a, 596.—Braun, 1893a, 903.—Linst., 1883, 311.—See also *bellinghamii*.—Also reported for *Astur nisus*, *A. palumbarius*, *Circus rufus*.
- gracile* (Rud., 1819) Duj., 1845a, 378.—Brand., 1888a, 68 (in *Mergus merganser*); 1890a, 595, pl. 41, fig. 26.—Braun, 1893a, 903.—Crep., 1846, 141, 142, 144, 145.—Dies., 1850a, 315; 1858e, 321 (in *Colymbus glacialis*, *Anas nigra*) (*Amphist. gracile* Bellingham).—Kowal., 1896d, (2) 252 (in *Anas crecca*, *A. boschas* dom.; *Dublaný*); 1904, (8) 23 (in *Mergus merganser*).—Linst., 1877, 188, pl. 13, fig. 17.—Par., 1901, 6.—Also reported for *Anas clangula*, *A. fusca*, *Anser albifrons*.
- hillii* Johnston, 1904, 110-111, pl. 6, figs. 1-8 (in *Larus novæ hollandiæ* Stephens).
- isostomum* (Rud., 1814) Duj., 1845a, 377.
- lagena* Mol., 1858, 127 (t. h. *Strix passerina*; *Patavii*); 1861, 195.—Brand., 1888a, 68 (in *St. pass.*); 1890a, 596 (in *Glaucidium passerinum*).—Braun, 1893a, 903.—Dies., 1858e, 320 (in *St. pass.*).—Linst., 1906, 15 (in *Gl. pass.*).
- longicollis* (Rud., 1819) Duj., 1845a, 374-375.—Brand., 1888a, 64-65 (in *Botaurus stellaris*; *Wien. Mus.*); 1890a, 592, pl. 41, fig. 19.—Braun, 1892a, 586; 1893a, 903.—Crep., 1849, 69.—Dies., 1850a, 316; 1858e, 321 (in *Larus argentatus*) (syn. *Amphist. longicollis* Bellingham).—Leuck., 1863, 481.—Mol., 1859, 818 (in *Larus ridibundus*; *Padua*).—Mueh., 1898, 19.—Par., 1887, 330-331.—Stoss., 1890, 50; 1891, 216; 1895, 37; 1897, 9; 1901, 91 (3) (in *Botaurus stellaris*; *Albona*); 1898, 21-22.—Reported also for *Ardea alba*, *A. stellaris*, *Larus cachinnans*, *Xema ridibundum*.
- lyratum* Schlotthauber, 1860, 129 (in *Ardea cinerea*).
- macrocephalum* (Rud., 1803) Blainv., 1828, 584.—Baird, 1853, 47.—Brand., 1888a, 68; 1890a, 596.—Braun, 1891d, 424 (in *Aquila chrysaëtos*, *Astur palumbarius*, *Circus aeruginosus*, *C. cyaneus*, *Strix noctua*); 1893b, 185.—Crep., 1839, 288; 1846, 130.—Dies., 1850a, 312, 313 (of Crep. and Duj., syn. of *H. variabile* Nitzsch), 313 (of Crep. pars, syn. of *H. erraticum* Duj.); 1858e, 320 (of Crep., 1849, 1, 64, syn. of *H. variabile* Nitzsch).—Duj., 1845a, 368-369.—Fischder.,

HOLOSTOMUM—Continued.

- 1901, 367; 1902a, 7 (Plan. strigis Gœze, 1782); 1903h, 490 (=strigis, type of Strigea, Amphist., Holost.).—Leuck., 1863, 460.—Linst., 1906, 14 (syn. H. variabile Nitzsch) (in Buteo vulgaris).—Shibley, 1905, v. 6 (1), 7 (type of Strigea).—Stoss., 1890, 131; 1890, 50; 1891, 111; 1892, 66; 1896, 126; 1898, 21.—Also reported for Falco buteo, F. nesus, F. palumbarius.
- megaloccephalum* Brand., 1888a, 67 (in Stomias sp.; by Natterer); 1890a, 595.—Braun, 1893a, 903 (Brazil).
- microstomum* (Rud., 1809) Duj., 1845a, 371.—Brand., 1888a, 68 (in Corvus caryocatactes); 1890a, 596 (in Caryocatactes nucifraga).—Braun, 1893a, 874, 903.—Dies., 1850a, 314 (in Corv. caryoc.; Gryphiae).
- multilobum* Cobbold, 1860a, 46–47 (in Charadrius pluvialis).—Brand., 1888a, 68; 1890a, 596 (syn. of H. cornutum Dies.).
- musculicola* Waldenburg, 1860, 12 (in Cyprinus, Perca fluviatilis).—Brand., 1888a, 15, 52; 1890a, 578.—Villot, 1898, 542.—Reported for Abramis brama, Scardinus erythrophthalmus.
- musculosum* Johnston, 1904, 112–114, pl. 7, figs. 4–9 (in Sterna bergii Licht.).
- nitidum* Leidy, 1856, 45 (t. h. Rana pipiens).—Brand., 1888a, 14, 68 (in R. pip.); 1890a, 595.—Braun, 1893a, 903.—Dies., 1858e, 321–322 (in R. pip.; Phila.).—Staff., 1902, 724.
- ochreatum* Nitzsch, in Giebel, 1857, 265 (t. h. Falco haliaëtus).
- patagiatum* Crep., 1846, 135 (t. h. Ardea stellaris).
- pellucidum* Schlotthauber, 1860, 129 (in Petromyzon fluviatilis).
- pileatum* (Rud., 1802) Blainv., 1828, 584.—Duj., 1845a, 377.—Ben., 1858a, 1861a, 179.—Brand., 1888a, 12.—Braun., 1893a, 903.—Crep., 1846, 137.—Dies., 1850a, 314–315.—Reported for Sterna macrura.
- platyccephalum* (Crep., 1825) Duj., 1845a, 376.—Baird, 1853a, 48.—Brand., 1888a, 63 (syn. of H. variegatum Duj.); 1890a, 591.—Braun, 1891d, 424 (in Larus ridibundus); 1893a, 876; 1893d, 467; 1894, 166.—Crep., 1839, 287; 1846, 129, 136, 139.—Dies., 1850a, 313.—Mégnin, 1891a, 323 (in Larus ridibundus).—Much., 1898, 16.—Reported also for Carbo cormoranus, Colymbus cristatus, C. rufogularis, Falco albicilla, Halieus carbo, Larus argentatus, L. canus, L. fuscus, Lestris pomarina.
- podomorphum* Nitzsch, 1819, 399–400, figs. 8–10 (in Falco haliaëtus; Europe).—Brand., 1888a, 12; 18—, 62.—Dies., 1850a, 311 (to Hemist.) (in F. hal.; Halle).—Duj., 1845a, 370.
- rotundatum* Linst., 1877, 187–188 (in Lanius collurio).—Brand., 1888a, 66 (syn. of H. sphaerula Duj.) (in Lanius collurio); 1890a, 593.
- serpens* Nitzsch, 1819, 400–401 (in Falco haliaëtus), figs. 17–22; in Rud., 1819a, 88, 353–354 (t. h. Falco haliaëtus) (to Amphist. by Rud., 1819a, 88, 353; returned to Holost. by Duj., 1845a, 371, and Dies., 1850a, 316); 1819, 399, 400–401, pl. 4, figs. 17, 22.—Ben., 1858a, 1861a, 197.—Blainv., 1828a, 584.—Brand., 1888a, 11, 68 (in F. hal.); 1890a, 596; 1891b, 265.—Dies., 1850a, 316 (syn. Amphist. ser.).—Braun, 1892a, 586, 746, 751; 1893a, 903.—Giebel, 1857, 265.—Much., 1898, 19.—Nord., 1840, 616, 628 (syn. Amphist. ser.).—Linst., 1904, 254.—Looss, 1893b, 810.—Sieb., 1835, 66.
- simplex* Johnston, 1904, 112, pl. 7, figs. 1–3 (in Ardea novæhollandiæ Lath.).
- spathaceum* (Rud., 1819) Duj., 1845a, 375–376.—Baird, 1853a, 48.—Brand., 1888a, 12.—Crep., 1846, 139.—Dies., 1850a, 310 (to Hemist.).—Erc., 1881e, 54; 1882a, 290.—Nord., 1840, 628.—Stoss., 1898, 20.
- spathula* Crep., 1829, 50–54 (in Falco buteo, F. nesus, F. lagopus); 1839, 288; 1846, 129 (spelled spatula Dies., 1836, 240).—Brand., 1888a, 12.—Dies., 1850a, 309 (to Hemist.).—Duj., 1845a, 369–370.—Mehlis, 1831, 174–176.—Mol. —.—Nord., 1840, 628 (spatula).—Stoss., 1898, 20.—Also reported for Strix brachyotus.
- spatula* Sieb., 1835, 57.—Dies., 1836, 240, for spathula.—Baird, 1853a, 48 (in Accipiter nesus).
- spatulatum* (Rud., 1819) Duj., 1845a, 376.—Brand., 1888a, 12.—Cobbold, 1876, 97.—Dies., 1850a, 367 (to Dist.).—Kowal., 1898 (to Echinost.).—Nord., 1840, 628.—Stoss., 1892, 186.
- sphaerocephalum* (Westrumb, 1823) Dies., 1850a, 314 (in Coracina scutata; Brazil).—Brand., 1888a, 65 (syns. Amphist. sph., Holost. westrumbii) (in Anas moschata); 1890a, 592–593, pl. 41, fig. 20.—Braun, 1893a, 903.—Wollfluegel, 1900, 9, 60.

HOLOSTOMUM—Continued.

- spharula* (Rud., 1803) Duj., 1845a, 371-372.—Blochmann, 1892b, 650 (in *Corvus cornix*).—Brand., 1888a, 66 (syn. *H. rotundatum*) (in *Corvus cornix*, *C. corone*, *Lanius collurio*, *Oriolus cristatus*); 1890a, 593, 594, pl. 41, fig. 7.—Braun, 1893a, 904; 1894k, 681.—Crep., 1846, 132.—Dics., 1850a, 314 (in *Corvus cornix*, *C. corone*, *C. frugilegus*); 1858e, 321 (in *C. glandarius*).—Kowal., 1896d, 252 (2) (in *Corvus cornix* L.; *Dublany*); 1904, 23 (8) (in *Garrulus glandarius*).—Linst., 1877, 187.—Mol., 1858, 128; 1861, 196.—Mueh., 1898, 19.—Wolffhuegel, 1900, 9, 26, 33, 41.
- squamosum* Villot, 1878, 20-21, pl. 5, figs. 2-3 (in *Streptilas interpres*).—Brand., 1888a, 18; 1890a, 577.—Linst., 1889.—Mont., 1888a, 23, 71.
- tenuicollis* (Westrumb, 1823) Dies., 1850a, 316 (in *Falco rufus*).—Brand., 1888a, 66 (in *F. rufus*); 1890a, 594, pl. 41, fig. 23.—Braun, 1892a, 586; 1893a, 904.—Also reported for *Circus rufus*.
- vinciforme* (Rud., 1819) Brand., 1888a, 66; 1890a, 594 (in *Oriolus cristatus*).—Braun, 1893a, 904.
- urniceps* Schlotthauber, 1860, 129 (in *Falco pygargus*, int.).
- urnigerum* (Rud., 1819) Duj., 1845a, 378-379.—Baird, 1853a, 49 (syn. *Codonocephalus mutabilis* Dies.).—Brand., 1888a, 13.—Dies., 1836, 241; 1858e, 323 (of Wedl syn. of *Co. mut.*, type Dies.).—Hannover, 1864a, 5.—Moul., 1856a, 219 (in *Rana esculenta*).—Sieb., 1835, 57.—Sons., 1893, 190 (syn. of *Co. mut.* Dies.).—Wedl, 1857, 255.
- vaginatum* Brand., 1888a, 64 (in *Cathartes* sp. by Natterer); 1890a, 591, pl. 41, fig. 24.—Braun, 1893a, 904 (Brazil).
- variabile* Nitzsch, 1819, 400, pl. 4, figs. 11-16 (in owls; Germany), syn. *Amphist. macrocephalum* Rud.; in Giebel, 1857a, 265 (in *Strix aluco*, *Scolopax gallinula*).—Baird, 1853a, 47 (=H. *macrocephalum* Blainv.).—Brand., 1888a, 5, 32, 63, 68 (in *Strix aluco*); 1890a, 561, 590, 596, pl. 41, fig. 1.—Braun, 1892a, 699; 1893a, 879, 881, 904; 1894k, 682; 1895b, 11.—Crep., 1839, 288.—Dies., 1850a, 312-313 (syns. *Planaria teres* poro *simplicis* Goeze, *Festuc. strigis* Schrank, *Fasc. strigis* Gmelin, *Strigea* Abildg., *Amphist. macrocephalum* Rud., *H. macrocephalum* Crep.) (in *Strix brachyotus*, *S. bubo*, *S. flammea*, *S. otus*, *S. aluco*, *S. passerina*, *S. tangmalmi*, *Falco tinnunculus*, *F. apivorus*, *F. albicilla*, *F. naevius*, *F. gallicus*, *F. lagopus*, *F. cineraceus*, *F. rufus*, *F. haliaëtus*, *F. buteo*, *F. peregrinus*, *F. pennatus*, *F. cyaneus*, *F. rufipes*, *F. imperialis*); 1858e, 320 (syns. *Amphist. macrocephalum* Bellingham, 1844; *H. macrocephalum* Crep., 1849) (in *Falco rufus*, *F. peregrinus*, *Ardea cinerea*, *Strix nyctea*, *S. pygmæa*).—Giebel, 1857, 265.—Hoyle, 1890, 539.—Kastenbaum, 1899, 244, fig. 33, 7.—Kowal., 1896d, (2) 252 (in *Buteo vulgaris* Bechst.; *Dublany*); 1904, (8) 23 (in *Otus brachyotus*; *Dublany*).—Linst., 1877, 187; 1903, 279; 1905, 191; 1906, 14 (syn. of *H. macrocephalum*).—Mol., 1858, 127; 1859, 818 (in *Strix otus*); 1861, 194-195, pl. 1, figs. 6-7.—Mueh., 1898, 16, 19.—Nord., 1840, 626 (syn. of *Amphist. macrocephalum*).—Par., 1887, 329-330; 1899, 4; 1902, 3-4 (in *Aesalon regalis*, *Asio otus*, *Circus cyaneus*; *Elba*).—Stoss., 1892, 66 (in *Falco peregrinus*; near *Triest*); 1895, 37 (in *Circus aeruginosus*; *Accipiter nisus* at *Triest*; *Syrnium aluco* in *Dalmatia*); 1896, 126 (in *Cerchneis tinnunculus*; *Staranzano*); 1898, 21.—Villot, 1898, 542 (adult of *Tetractyle colubri*).—Walter, 1866, 64 (*A. macrocephalum* Crep.).—Wedl, 1857, 252-253, pl. 1, fig. 18.—Wolffhuegel, 1900, 9, 11 (in *Vultur calvus*), 16, 17, 44.—Reported for *Ægoliolus brachyotus*, *A. otus*, *Aquila albicilla*, *A. imperialis*, *A. naevia*, *A. pennata*, *Archibuteo vulgaris*, *Ardea cineria*, *Astur nisus*, *Brachyotus palustris*, *B. variabilis*, *Bubo maximus*, *Buteo lagopus*, *Circæetus gallicus*, *Circus cineraceus*, *C. cyaneus* v. *hudsonius*, *C. rufus*, *Falco cyaneus*, *Nyctea nivea*, *Otus vulgaris*, *Pica caudata*, *Picus* sp., *Scolopax gallinula*.
- variegatum* (Crep., 1825) Duj., 1845a, 376-377.—Brand., 1888a, 7, 63 (syn. *H. platycephalum* Duj.).—Baird, 1853a, 48.—Braun, 1893a, 844, 904; 1894, 166, 167; 1894k, 681.—Crep., 1846, 139.—Dies., 1850a, 315.—Duj., 1845a, 376-377 (in *Larus maximus*).—Mueh., 1898, 16, 19-20, fig. 9.—Villot, 1898, 542 (adult of *Tetractyle ovata*).—Wolffhuegel, 1900, 9, 62.—Reported for *Alca torda*, *Anas boschas*, *Carbo cormoranus*, *Colymbus rufogularis*, *C. septentrionalis*, *Falco albicilla*, *Fuligula nyroca*, *Harelda glacialis*, *Larus argentatus*, *L. marinus*, *L. ridibundus*, *Podiceps cristatus*, *Uria troile*, *Xema ridibundum*).
- westrumbii* Cobbold, 1860a, 45 (*Amphist. sphaerocephalum* Westrumb, renamed) (in *Coracina scutata*; Brazil).

- HOMALOGASTER Poir., 1883, 74-76, 79 (m. paloniæ) (ὄμαλός=flat; γαστήρ=stomach); 1885, 120.—Braun, 1892a, 568, 581, 645, 663; 1893a, 879, 886, 890, 892, 895, 904, 906, 918.—Fischder., 1901, 374; 1902a, 7, 46, 47; 1903h, 489 (in Palonia frontalis); 1903h & i, 630-631 (diagnosis, type paloniæ).—Gamb., 1896, 73.—Hoyle, 1890, 539.—Looss, 1895, 11; 1896b, 17; 1899b, 541; 1902m, 440.—Mont., 1888, 7, 12, 14, 35, 91, 103; 1892, Oct. 7, 214 (gen. of Amphistominæ).—Piana & Stazzi, 1900, 523.—Pratt, 1902, 887, 892.—Shipley, 1905, v. 6 (1), 8.—Sons., 1895, 184, 186; 1896, 310.—Stiles, 1898a, 24.
- paloniæ* Poir., 1883, 74-76, pl. 2, figs. 1 a-b (t. h. Palonia frontalis; Java).—Braun, 1893a, 874, 907; 1893d, 466.—Fischder., 1901, 374; 1902a, (7) 47 (in Palonia frontalis; Java); 1903h, 630 (Dickdarm, Palonia frontalis; Java).—Giard & Billet, 1892a, 615.—Linst., 1889a, 21.—Sons., 1895, 184.—Stiles, 1898a, 24, 37, 72, 139, fig. 67.
- poirieri* Giard & Billet, 1892a, 615 (in cattle; Tonkin).—Fischder., 1901, 374; 1902a, 47-48 (in Bos taurus; Tonkin); 1903h, 630-631 (in Tonkin cattle).—Rail., 1893, 379.—Sons., 1895, 185.—Stiles, 1898a, 24, 67, 140.—Ward, 1895, 332 (in Bos taurus).
- HOMALOMETRON Staff., 1904, May 3, 487 (m. pallidum); 'ουαλός, regular; μέτρον, mass.
- pallidum* Staff., 1904, May 3, 487 (t. h. Fundulus heterochitus L.; Woods Hole) (based on Lint., 1901, 422, pl. 32, fig. 354).
- HOPILODERMA Cohn, 1903, 35-37 (m. mesocœlium).—Poche, 1907, 125 (Cohn not Michael, renamed Pintneria).
- mesocœlium* Cohn, 1903, 35-37, figs. 1-2 (in Draco volans; Eastern Java).
- (HORMOCERCARIA) Dies., 1855a, 390, 394 (subg. of Cerc.) (type species echinata, or echinatoides) (corpus infra os collari echinis percurso cinctum).—Renamed (Nephrocephala), 1858.
- echinata* (Sieb., 1837) Dies., 1855a, 390-391; 1858d, 261. [See Dist. echinatum, type of Echinost.]
- echinatoides* (Fil., 1854) Dies., 1855a, 391-392; 1858d, 262. [Apparently type by elimination.] See, however, below, p. 385, Addenda.
- HYDRICUCULUS McCrady, 1874a, 178 (m. cuculus, see sub Bucephalus) generic name abandoned by McCrady at date of publication.
- HYPOSTOMA (Rud., 1809a, 36-37, 325-327) (nec Hypostomus Lac., 1803, fish) (type species probably caryophyllinum by Blainv., 1828a, 581; ὑπο, below; στομα, mouth; originally a subg. of Monost.; see also (Hypost.).—Blainv., 1824a, 518 (hypostome, "C'est un genre bien douteux, peut-être un degré de développement"); 1828a, 581.—Crep., 1839, 285.—Looss, 1902m, 830.—Nord., 1840, 623.—Olfers, 1816, 48.
- caryophyllinus* (Rud., 1802) Blainv., 1828, 581.—Dies., 1850a, 328 (to Monost.).—Duj., 1845a, 360 (to Monost.).—Nord., 1840, 623 (to Monost.).
- (HYPOSTOMA) Rud., 1809a, 36-37, 325-327, subg. of Monost. See Hypostoma.
- caryophyllinum* (Rud., 1802) Rud., 1809a, 325-326 (to Hypost. by Blainv., 1828, 581; returned to Monost. by Duj., 1845a, 360).
- cochleariforme* Rud., 1809a, 326-327 (= Festuc. cyprinacea Schrank, 1790, renamed) (in Cyprinus barbatus).
- gracile* Rud., 1809a, 326 (t. h. Salmo eperlanus).
- HYPOSTOMATA Rud., 1809a, 325, plural of Hypostoma.
- ICHTHYIDIUM Hemprich & Ehrenberg, 1828a (m. Cerc. podura Mueller; Nubia; Berlin), n. g. Ichthydinorum.
- ITYOGONIMUS Luehe, 1899k, 538 (tod. ocreata Zed. = lorum Duj.; ἵτρος, margin, because of marginal position of genital pore); 1900, 557; 1901, 488.—Braun, 1900h, 6, 13; 1901i, 56; 1901, 897; 1902b, 129, 134.—Looss, 1900, 607; 1901, 206; 1902m, 755 (= Cucullanus Schrank), 839.—Pratt, 1902, 889, 907.
- ocreatus* (Gæze, 1782) Braun, 1902b, 135.—[Luehe, 1899, 538 (= Dist. lorum Duj.).]
- KLEPSITROMIS Hammerschmidt in Leuck., 1835a, 88 (m. melolonthæ) "das aber viele Aehnlichkeit mit Distoma zu haben scheint."
- melolonthæ* Hammerschmidt in Leuck., 1835a, 88, a drawing in Vienna.

KÖLLIKERIA Cobbold, 1860a, 31 (m. filicollae) (not Agassiz, 1862; not Mingazzini, 1891, protozoon).—Braun, 1893a, 885, 886 (Köllikeria), 894, 895, 908, 909, 911, 918; 1895b, 127, 136.—Gamb., 1896, 73.—Lint., 1901, 447.—Looss, 1899b, 536, 542, 543; 1901, 196.—Moniez, 1896, 83.—Mont., 1888, 92, 105; 1893, 149, 153, 154.—Pratt, 1902, 889, 908.—Schneidemuehl, 1896, 295.—Stiles & Hass., 1898a, 91, 98 (type Monost. filicollae Rud.).—Stoss., 1892, 4.—Tasch., 1879, 608.

1893: Köllikeria Braun, 1893a, 886, for Köllikeria.

filicollis (Rud., 1819) Cobbold, 1860a, 31; 1879b, 462.—Ariola, 1906, 186, to (Dist.) (in *Brama raii*).—Braun, 1893a, 912.—Sons., 1890, 143 (in *Brama raii*).

okeni Ariola, 1906, 186 (syn. Dist. *okeni* Koell.), for *okenii*.

[*staurocephali* Mingazzini, 1891, protozoon.]

(KÖLLIKERIA) as subg. of Distoma. See also as genus.

dicorynum (Dies., 1850) Stoss., 1886, 47, as doubtful member of subg. (in *Lampris guttatus*).

filicollae (Rud., 1819) Stoss., 1886, 58.

LATIUSCULA Goeze, 1782a, 41, 169–173 (a “Klasse” of Plan. Goeze, containing: *F. hepatica*, *Fledermausplattwurm*, *F. lucii*, *F. scorpii*, *F. luciopercae*, *F. percae cernuae*, *F. serrulata*, *F. farionis*, *F. salmonis*, *F. varica*, *F. platessae*, *F. blennii*).

LECANE Nitzsch, 1827, 69 (contains *Cerc. orbis*, *C. luna*).

LECHRIORCHIS Staff., 1905, Apr. 11, 691 (m. *primus* λέχριος, oblique; ὄρχις, testicle) (resembles *Saphedera*, *Plagiorchis* and *Haplometra*).

primus Staff., 1905, Apr. 11, 691 (t. h. *Eutenia sirtalis* L.; Canada) (includes Dist. sp. of Staff., 1902, 482).

LECITHASTER Luehe, 1901n, 395, 396 (tod. *bothryophorus* Olss. of Looss), 479–480.—Odh., 1905, 357, 358, 359, 360, 366 (type *confusus* Odh. by Odh.).—Pratt, 1902, 889, 906.—Staff., 1904, 484.

bothryophorus (Olss., 1868 of Looss) Luehe, 1901n, 396, 480.—Odh., 1905, 357 (*bothryophorus*).—Staff., 1904, May 3, 484 (syn. *Apoblema mollissimum* Levin.) (in *Salmo salar* L., *Clupea harengus* L.).

bothryophorus Odh., 1905, 357, for *bothryophorus*, renamed *confusus*, 1905.

confusus Odh., 1905, 357, 358, 359 (made type of genus by Odh.) (syns. *L. bothryophorus* of Luehe, Dist. *mollissimum* Levin. of Stoss., *Apoblema mol. Levin.*), in intestine of *Alosa finta* of Mediterranean, and *Clupea harengus* of North Sea.

gibbosus (Rud., 1802) Luehe, 1901n, 480, in intest. of *Belone acus*, in Greifswald.—Odh., 1905, 356–359 (syns. Fasc. gib. Rud., 1802, 81, pl. 2, fig. 7; Dist. gib. Rud., 1809a, 404, pl. 6, fig. 8; D. *bergense* Olss., 1868, 43, pl. 5, fig. 93; D. *mollissimum* Levin., 1881, 59, pl. 2, fig. 4; *Lecithaster gib.* Luehe, 1901, 480; [not Dist. *bothryophoron* Olss., 1868, 42, pl. 5, fig. 92; not D. *mollissimum* Levin., of Stoss., 1889, 1–2; not *Apoblema mollissimum* (Levin.) Looss, 1896, 121, pl. 9, figs. 85–87]).—Nicoll, 1907, 72, 89–90 (syn. *L. mollissimus*) (in *Ammodytes tobianus*).

mollissimus (Levin., 1881) Nicoll, 1907, 89 (syn. of *L. gibbosus*).

LECITHASTERINÆ Odh., 1905, 360, 364 (includes *Lecithaster* and *Lecithophylum*).

LECITHOBOTRYS Looss, 1902h, 134, 135 (tod. *putrescens*).

putrescens Looss, 1902h, 135, 143, fig. 14 (in *Mugil auratus*).

LECITHOCHIRINÆ Luehe, 1901n, 481 (includes *Lecithochirium*, *Derogenes*, and *Lecithaster*).

LECITHOCHIRINÆ Nicoll, 1907, 89, for *Lecithochiriniæ*.

LECITHOCHIRIUM Luehe, 1901n, 395, 396 (tod. *rufoviride*), 397, 401, 473–478, 479, 480, 484.—Odh., 1905, 360, 362, 364; 1906, 59–66 (syn. *Synaptobothrium*).—Pratt, 1902, 889, 906.

caudiporum (Rud., 1819) Luehe, 1901n, 477–478.

conviva Luehe, 1901n, 474, 476 (in *Conger conger*; Coll. Berlin).

copulans (Linst., 1904) Odh., 1906, 59–66 (syn. *Synaptobothrium copulans* Linst.).

digitatum (Looss, 1899) Luehe, 1901n, 396, 401, 474, 475, 478.

LECITHOCHIRIUM—Continued.

fusiforme Luehe, 1901n, 476, 480, 485, fig. 3 (in *Conger conger*; Coll. Berlin).—Odhn., 1905, 349.

grandiporum (Rud., 1819) Luehe, 1901n, 474, 477.

physcon Luehe, 1901n, 478 (in *Lophius piscatorius*; Triest).

rufoviride (Rud., 1819) Luehe, 1901n, 396, 474–475, 476, 477, 478.—Nicoll, 1907, 72 (in *Anguilla vulgaris*).—Odhn., 1905, 350, 355; 1906, 63.

LECITHOCLADIUM Luehe, 1901n, 395 (tod. excisum), 401–403, 474, 481, 485.—Cohn, 1902k, 47–68, 1 pl., 9 figs.—Nicoll, 1907, 84.—Odhn., 1905, 355, 356 (type excisum).—Pratt, 1902, 889, 906.

barbatum Cohn, 1902k, 47–54, 55, pl. 3, figs. 1–7 (in *Coryphæna*).

excisiforme Cohn, 1902k, 54–55, pl. 3, fig. 8 (in *Scomber scomber*).

excisum (Rud., 1819) Luehe, 1901n, 395, 398, 402, 403, 485, fig. 1.—Cohn, 1902k, 48, 54.—Odhn., 1905, 350.

tornatum (Rud., 1819) Luehe, 1901n, 403, 485, fig. 2.—Cohn, 1902k, 47, 48.

LECITHODENDRIINE Looss, 1902m, 815.

LECITHODENDRIUM Luehe, 1901, 173.—Stoss., 1904, 198.

LECITHODENDRIUM Looss, 1896b, 86 (includes: *Dist. glandulosum*, *D. hirsutum*, *D. chefrenianum*, *D. pyramidum*, *D. obtusum*, *D. sphaerula*, *D. ascidia* Rud., *D. ascidia* Ben. (= *lagena* Brand.), *D. ascidioides*, *D. heteroporum* (probably); 1898, 453; 1899b, 547, 548, 551, 609–610, type *ascidia* Ben. = *lagena* Brand., 611, 612, 613, 617, 618, 619, 621, 622, 625, 636, 718; 1901, 194, 199, 200; 1902m, 768–775, 813, 814, 815, 816, 818, 820, 821, 822, 823, 824, 827, 831, 832, 835.—Braun, 1900f, in 387–391; 1901, 948; 1902b, 150.—Jägers., 1900, 740.—Odhn., 1900, 12.—Luehe, 1899, 535, 536, 537.—Pratt, 1902, 889, 904.—Staff., 1903, 827, 828; 1905, Apr. 11, 684.—Stiles, 1901, 183, 185, 196, 197, 200, 201, 202, 203.—Stoss., 1899, 7, 8.—Ward, 1901, 176.

anticum Staff., 1905, Apr. 11, 693 (t. h. *Vespertilio subtilis* Say; Canada) (anticus, foremost in ref. to ovary in front of acetabulum).

ascidia (Ben., 1873 [not Rud., 1819]) Looss, 1899b, 609, or Stoss., 1899, 8.—Braun, 1900, 224–225; 1900, 388.—Heymann, 1905, 85.—Kowal., 1902d, 26 (8).—Looss, 1907, Mar. 5, 484 (of Looss, 1899b, 715, syn. of *L. granulosum*).—Staff., 1905, Apr. 11, 692.

ascidioides (Ben., 1873) Looss, 1899b, 609, or Stoss., 1899, 8 (intestino di diversi chiroterri; Belgium, France).—Braun, 1900, 388.—Staff., 1903, 828.

chefrenianum (Looss, 1896) Looss, 1899b, 716, or Stoss., 1899, 8 (in *Rhinopoma microphyllum*; Egypt).—Braun, 1900, 225.—Staff., 1905, Apr. 11, 692 (syn. of *L. glandulosum*).

chlostomum (Mehlis, 1831) Braun, 1900, 220–223, 224, 225, 228, 230.—Staff., 1903, 828; 1905, Apr. 11, 692 (Mehlis of Staff. with *Dist. ascidioides* Ben., of Staff., 1903, 827, renamed *L. posticum*).—Stoss., 1904, 1.

claviforme (Brand., 1888) Stoss., 1899, 9 (in *Tringa alpina*; Halle).

cordiforme Braun, 1900f (23. Juli), 389 (in *Molossus* sp.; Brazil), 390, or 1900b, 225–227, 228, 233, pl. 10, figs. 4, 11 (in *Molossus* sp.).

crassicolle (Rud., 1809) Stoss., 1899, 9 (in *Anguis fragilis*; Triest, Hameln; Salamandra atra, *S. maculosa*, *Salamandrina perspicillata*; Toscana).—Looss, 1902m, 822, 823.—Luehe, 1900, 562–563; 1901, 173.

glandulosum (Looss, 1896) Looss, 1899b, 609, 716–717, or Stoss., 1899, 8 (in *Taphosus nudiventris*; Egypt).—Braun, 1900, 388; 1900, 225, 226.—Staff., 1905, Apr. 11, 692 (syn. *L. chefrenianum*).

granulosum Looss, 1907, Mar. 7, 483–484, fig. 4a–b (in *Vesperugo kuhli*; Cairo, Egypt) (syn. *L. ascidia* of Looss, 1899b, 715).

heteroporum (Duj., 1845a) Stoss., 1899, 9 (in *Vesperugo pipistrellus*; Hameln, Rennes).

hirsutum (Looss, 1896) Looss, 1899b, 609, 625, 716, 717, or Stoss., 1899, 9 (intestino del camaleonte; Alessandria).—Braun, 1900, 225; 1900, 388.—Staff., 1905, Apr. 11, 692.

lagena (Brand., 1888) Looss, 1899b, 609, 625, 636, 715–716, 718 (i. e., *ascidia* Ben.) (type of *Lecithodendrium*).—Braun, 1900, 225.

macrolaimus (Linst., 1893) Stoss., 1899, 9 (in *Vesperugo pipistrellus*; Germany).

LECITHODENDRIUM—Continued.

nigrovenosum (Bellingham, 1844) Luehe, 1899, 535.—Rizzo, 1902, 28 (in *Tropidonotus natrix*).

obtusum (Looss, 1896) Looss, 1899b, 609, or Stoss., 1899, 8 (intestino del camaleonte; Alessandria).—Staff., 1905, Apr. 11, 692.

oviforme (Poir., 1886) Stoss., 1899, 8 (in *Nycticebus javanicus*).—Staff., 1905, Apr. 11, 692.

posticum Staff., 1905, Apr. 11, 692–693 (t. h. *Vespertilio subtilis* Say; Canada) (*posticus*=hinder) (syn. *L. chilostomum* Mehlis of Staff., 1903, 827) (=Dist. *ascidioides* Ben. of Staff.).

pyramidum (Looss, 1896) Looss, 1899b, 609, or Stoss., 1899, 8 (in *Rhinolophus hipposcrepis*; Egypt).—Braun, 1900, 225; 1900, 388.

rubellum (Olss., 1868) Stoss., 1899, 9 (in *Labrus maculatus*).

somaterix (Levin., 1881) Stoss., 1899, 8 (in *Somateria mollissima*; Greenland).—Jameson, 1902, 151–161 (*Levcithodendrium*).—Nicoll, 1906, 149 (*Leucithodendrium*).—Odh., 1905, 311 (to *Gymnophallus*).

spherula (Looss, 1896) Looss, 1899b, 609, 610, 621, or Stoss., 1899, 8 (in *Rhinolophus hipposcrepis*; Egypt).—Braun, 1900, 225, 227; 1900, 388, 390.—Ward, 1901, 180.

urna Looss, 1907, Mar. 5, 485–486, figs. 5a–b (in *Vesperugo kuhli*; Cairo, Egypt).

LECITHODENDRUM Pratt, 1902, 903 (misprint for *Lecithodendrium*).

LECITHODESMUS Braun, 1902, 803 (m. *goliath*).—Odh., 1905, 339, 344, 346, 347, 348.

goliath (Ben., 1858) Odh., 1905, 342, 343, 344–346, 348, pl. 3, figs. 7–9, in *Balanoptera rostrata*, *B. borealis*.

LECITHOPHYLLUM Odh., 1905, 359–360 (tod. *botryophorum*).

botryophorum (Olss., 1868) Odh., 1905, 359 (in *Argentina silus*).

LECITHORCHIUM Lander, 1904a, 7, for *Lecithochirium*.

LEIODERMA Staff., 1904, May 3, 486 (m. *furcigerum*) (not *Leioderma* Will.-Suhm, 1873, worm) (*λεῖος*, smooth; *δέρμα*, skin); 1905, 310.

furcigerum (Olss., 1868) Staff., 1904, 486 (in *Pseudopleuronectes americanus*, *Platysomachthys hippoglossoides*, *Hippoglossoides platessoides*, *Cryptacanthodes maculatus*).

LEPIDAPEDON Staff., 1904, May 3, 485 (m. *rachion*, from intest. of *Melanogrammus æglefinus*; Canada) (*λεπίς*, scale; *δάπεδον*, pavement). See *Lepodora*.

rachion (Cobbold, 1858) Staff., 1904, 485.

LEPIDOPHYLLINÆ Stoss., 1904, 198.

LEPIDOPHYLLUM Odh., 1902, 68–69 (m. *steenstrupi*).—Pratt, 1902, 889, 902.

steenstrupi Odh., 1902, 68–69, fig. 3 (in *Anarrhichas minor* s. *pantherinus*; Coll. Copenhagen); 1905, 310 (in *A. lupus*, *Zoarces anguillaris*).—Staff., 1904, May 3, 487 (in urinary bladder, *Anarrhichas lupus* L.; Canada, *Zoarces anguillaris* Peck; Canada).

LEPOCREADIINÆ Odh., 1905, 328, 337.

LEPOCREADIUM Stoss., 1904, 200–201 (tod. *album*).—Odh., 1905, 328, 336, 337–338.

album (Stoss., 1890) Stoss., 1904, 200 (in *Cantharus orbicularis*; *Oblata melanura*).—Odh., 1905, 336, 338.

pegorchis (Stoss., 1901) Stoss., 1904, 200.—Odh., 1905, 338.

LEPODERMA Looss, 1899b, Dec., 589–590, 592, 594, 595, 598, 599, 601 (tod. *ramlianum*) (orig. species: *ramlianum*, *cirratum*, *mentulum*, *lima* probably) (*τὸ λέπος*, scale; *τὸ δέρμα*, skin); 1900, 558; 1900, 604, 607; 1907, Mar. 5, 483.—Braun, 1901i, 56, 58; 1901, 563; 1902b, 37 (syn. of *Plagiorchis* Luehe, 1899, 531).—Luehe, 1901, 487.—Stiles, 1901, 189.—Stoss., 1904, 2.

cirratum (Rud., 1802 [*cirrhatum*]) Looss, 1899b, 590.—Braun, 1902b, 43 (to *Plagiorchis*).

mentulatum (Rud., 1819) Looss, 1899b, 590.

ramlianum (Looss, 1896) Looss, 1899b, 589.

LEPODERMATINÆ Looss, 1899b, 588, 591, 594; 1901b, 207; 1902m, 839, 841.—Luehe, 1900, 561; 1901, 173.—Odh., 1902, 40.

- LEPODORA Odhn., 1905, 332-337, 338 (m. *rachiaea*=*rachion* Cobbold).—See *Lepidapedon*.
- rachiaea* Odhn., 1905, 328, 332-338, fig. 3, pl. 2, figs. 12-15 (syns.: *Dist. rachion* Cobbold, *D. increscens* Olss., pars) (in *Gymnocanthus ventralis* on west coast of Spitzbergen; *Gadus aeglefinus*, *G. morhua*, on west coast of Sweden; *Merluccius vulgaris*).—Nicoll, 1907, 71, 77-80, pl. 1, figs. 3-4 (in *Gadus aeglefinus*).
- LEPTALEA Looss, 1899b, 627-628 (tod. *exilis*) (not *Leptalea* Klug, 1839, hymenopt.) (renamed *Emoleptalea* Looss, 1900, 602) (*λεπταλέος*, thin, weak): 1900, 602.—Braun, 1902b, 69.—Stiles, 1901, 189.
- exilis* Looss, 1899b, 628, 719-720, figs. 37-38 (in *Bagrus bayad*; Cairo.)
- LEPTOCOTYLE Mont., 1905, 70 (subg. of *Pseudocotyle*) tod. *Pseudocotyle minor* Mont.
- LEPTOPHYLLUM Cohn, 1902h, 880 (m. *stenocotyle*).
- stenocotyle* Cohn, 1902h, 880-882, fig. 4 (in *Herpetodryas fuscus*; South America); 1903, 37.
- LEPTOSOMA Staff., 1904, May 3, 484 (m. *obscurum* from *Lophius piscatorius*; Canada); *λεπτός*=slender; *σῶμα*, body) (not *Leptosoma* Leach, 1819, coleopteron; Risso, 1826, crustacean; Nardo, 1827, fish; Boisd., 1833, lepidopteron).
- obscurum* Staff., 1904, May 3, 484 (*obscurus*=unknown) (t. h. *Lophius piscatorius*; Canada).
- LEUCERUTHRUS Marshall & Gilbert, 1905, 477, 481-483, 484 (m. *micropteri*).
- micropteri* Marshall & Gilbert, 1905, 481-483, figs. 8-14 (in *Micropterus salmoides*, *M. dolomieu*; near Madison, Wis.).
- LEUCITHODENDRIUM Shipley & Hornell (see under *L. somateriæ*), 1904, 77, for *Lecithodendrium*.
- somateriæ* (Levin., 1881) Shipley & Hornell, 1904, 77.
- LEUCOCHLORIDIA Cobbold, 1876h, 211, plural of *Leucochloridium*.
- LEUCOCHLORIDIUM Carus, 1835a, 86-100 (m. *paradoxum*).—Ben., 1858a, 1861a, 219.—Braun, 1883a, 56; 1891c, 215; 1892a, 769, 771, 775, 801, 814; 1893a, 855, 884.—Burm., 1856a, 250.—Crep., 1839, 301.—Dies., 1850a, 287, 303 (syn. *Vermis dubius heliciis putris* Rud.); 1855a, 397; 1858d, 276.—Duj., 1845a, 479.—Fil., 1855b, 25.—Goldb., 1855, 16.—Jackson, 1888, 651 (= *Dist. macrostomum*; in *Succinea amphibia*), 652.—Leuck., 1879, 99; 1886d, 75.—Looss, 1892, 128; 1894a, 245, 252.—Mont., 1888, 92, 94.—Moul., 1856a, 65, 87.—Pag., 1857, 6, 7, 9, 53.—Spengel, 1905, 258.—Stiles, 1901, 176.—Stiles & Hass., 1898a, 91, 95 (syn. of *Urogonimus* Mont.).—Tennent, 1906, 647, 650.—Vogt, 1878, 39.—Zeller, (1874), 564-578, pl. 48.
- 1893: *Urogonimus*.
- macrostomum* (Rud., 1803) Poche, 1907, 125.
- paradoxum* Carus, (1833a); 1835a, 86-100c (in *Succinea amphibia*, *Helix putris*; Saxony), pl. 7, figs. 1 —; —, 36.—[Ahrens, 1810, 292, pl. 9, figs. 12-19; 1818, 1467].—Bavay, 1902a, 200.—Braun, 1891c, 219; 1892a, 769, 772, 773, 806, 808; 1893a, 830, 855, 863; 1895b, 134.—Cobbold, 1879b, 436.—Crep., 1837, 325; —, 302.—Creutzberg, 1890a, 11.—Dies., 1850a, 303 (syn. *Vermis dubius heliciis putris* Rud.); 1855a, 397 (in *Succ. amph.*); 1858d, 276-277 (syn. *Cerc. exfoliata* Moul.) (in *Succ. amph.*).—Duj., 1845a, 479.—Erc., 1881e, 55; 1882a, 291.—Gamb., 1896a, 65.—Heckert, 1887a, 456-461; 1887b, 603; 1888a, 49-50; 1889a, 66 pp., 4 pls.; 1889b, 357-362; 1890a, 42-43; 1891a, 189.—Hoyle, 1890, 540 (larva of *Dist. macrostomum*), fig. 4 C-D.—Leuck., 1863a, 521; 1879a, 95; 1886d, 72.—Looss, 1892, 120; 1894a, 236, 262; 1896, 140.—Mont., 1888, 76; 1892, Oct. 7, 187.—Moul., 1856a, 56, 65, 75, 87-90, 180 (*Cerc. exfoliata*), 181, pl. 5, bis, fig. 8; pl. 6, figs. 13, 14 (in *Succ. amph.*; *Helix. Limax*).—Nord., 1840, 548, 592, 631.—Piper, 1851, 313.—Poche, 1907, 125.—Rud., 1819a, 198, 568.—Schultze, (1871), 129.—Sieb., 1835, 77; 1835, 334; 1836, 49; 1853, 425-437, pl. 16 B; 1854, 14.—Steenstrup, 1842, 56; 1842, 103.—Stiles & Hass., 1898a, 95.—Tschudi, 1837, 75.—Vogt, 1852, 183, 191, fig. 66.—Wagener, 1857, 22, 23, pl. 33, figs. 1, 2-4.—Will.-Suhm, 1870, 4.—Zeller, 1874, 366-370; 1874, 20, Oct., 564-578, pl. 48; 1875, Feb., 162-164.
- vogtianum* Baudon, 1881, 145-147, pl. 5, fig. 5 (in *Succinea baudoni* Drouët).
- LEUKOCHLORIDIUM Sieb., 1853, 425, for *Leucochloridium*.
- LEVCITHODENDRIUM Jameson, 1902, 151, misprint for *Lecithodendrium*.
- somateriæ* (Levin., 1881) Jameson, 1902, 151-161, pls. 15-16.—Odhn., 1905, 311 (to *Gymnophallus*).

- LEVINSENIA Stoss., 1899, 7, 9-10 (tld. brachysomum by Looss, 1899b, 622, and Luehe, 1899, 538) (not Levinsenia Mesnil, 1897, vermes).—Braun, 1900h, 6; 1900, 234.—Jägers., 1901, 982.—Looss, 1899b, 617, 620; 1902m, 703, 704, 705, 706.—Luehe, 1899, 538; 1900, 508; 1901, 488.—Odhn., 1900, 13; 1905, 314, 317.—Stiles & Hass., 1902d, 19-20 (renamed Levinseniella, type brachysoma); 1905, July, 54.—Ward, 1901, May, 175, 176 (Levinseniella Stiles), 181.
- brachysomum* (Crep., 1846) Stoss., 1899, 10.—Jägers., 1900, 736, 739 (brachysoma); 1901, 982.—Looss, 1899b, 620; 1902m, 704.—Ward, 1901, 175.
- macrophallos* (Linst., 1875) Stoss., 1899, 10 (in *Actites hypoleucos*, *Totanus fuscus*; Germany).—Looss, 1899b, 620.—Ward, 1901, 175.
- opacum* (Ward, 1894) Stoss., 1899, 9 (in *Amia calva*, *Cambarus propinquus*; Lake St. Clair; *Ictalurus punctatus*, *Perca flavescens*).—Looss, 1899b, 620.—Ward, 1901, 175 (type of *Microphallus*).
- pygmæum* (Levin., 1881) Stoss., 1899, 9, 10 (in *Somateria mollissima*; Greenland).—Jägers., 1900c, 732-740, figs. 1-3 (pygmæa); 1901b, 982 (type of *Spelotrema*).—Looss, 1899b, 620; 1902m, 705, 706, 784.—Nicoll, 1906, 522, 524 (pygmæa).—Odhn., 1900, 19, 20; 1905, 314 (to *Spelotrema*).—Ward, 1901, 175, 176.
- pygmæa similis* Jägers., 1900c, 737, figs. 1-3.—Luehe, 1900, 508.—Nicoll, 1906, 522.
- similis* (Jägers., 1900) Nicoll, 1906, 514, 519, 522-525, pl. 13, fig. 8 (syn. *Spelotrema simile* Jägers.) (in *Hæmatopus ostralegus*, *Larus argentatus*).
- LEVINSENIELLA Stiles & Hass., in Ward, 1901, May, 176, 181, 182, 183, 184 (tod. *D. brachysomum*) (Levin senia Stoss., 1899, not Mesnil, 1897, renamed); Stiles & Hass., 1902d, 19-20; 1905c, 54.—Jägers., 1901, 982; 1903a, 14, 15.—Looss, 1902m, 703, 704, 705, 706, 828, 830, 839.—Odhn., 1905, 314, 317, 318.—Pratt, 1902, 889, 902, 903.—Staff., 1905, Apr. 11, 684.
- brachysoma* (Crep., 1846) Stiles & Hass., 1902d, 20 (type).—Looss, 1902m, 705, 830, 831.
- pygmæa* (Levin., 1881) Staff., 1903, 824.—Type of *Spelotrema* 1901.
- LINGUATULA Frølich, 1789a, 148 (m. serrata) [an arachnoid, formerly placed among the trematodes].
- caviæ* (Bosc, 1811) Blainv., 1828a, 532.
- crotali* (Humboldt, 1808) Blainv., 1828a, 532.
- denticulata* Rud., 1805.—Dies., 1850a, 616 (to Pentast.).
- integerrima* Frølich, 1791a, 104-105, host unknown.—Dies., 1850a, 412 (to Polyst.).—Rud., —, 93, pl. 2, figs. 9a-f.—Type of Polyst.
- lanceolata* (Chabert, 1787a) Blainv., 1828a, 532.—Dies., 1850a, 610 (syn. of Pentast. *tænioides* Rud.).
- pinguicola* (Treutler, 1793) Nordmann, 1840, 594.—Dies., 1850a, 410 (to Hexathyridium).
- serrata* Frølich, 1789a, 148-150, pl. 4, figs. 14-15 (in hares).—Braun, 1903, 3. ed., 338 (larva of *L. rhinaria*).—Dies., 1850a, 616 (to Pentast.).
- venarum* (Treutler, 1793) Nordmann, 1840, 594.—Dies., 1850a, 410 (to Hexathyridium).
- LINGULA L. —.—Rafinesque, 1815, 151 (genus of Fasciolaria).
- LINTONIA Mont., 1904, Dec. 1, 117-124 (tod. papillosa); 1905, 70; 1905, 117.
- papillosa* (Lint., 1898) Mont., 1904, 118-122, 123, pl. 7, figs. 1-7; 1905, 116-123, pl. 7, figs. 1-7 (in *Gadus callarias*).
- LIOCERCA Looss, 1902m, 732 (type bonnieri), 839 (Liopyge, renamed).
- 1899: Liopyge Looss, 1899b, 642 (tod. bonnieri), not Liopygus Lewis, 1891, insect.
- bonnieri* (Mont., 1893) [Looss, 1902m, 732].
- LILOPE Cohn, 1902h, 877 (m. copulans).
- copulans* Cohn, 1902h, 877-880, figs. 1-3 (in *Cryptobranchus japonicus*; died in Europe); 1903, 39, 40, 41, fig. 4a-c.—Linst., 1904, 254.
- LIOPYGE Looss, 1899b, 642 (not Liopygus Lewis, 1891, 385, insect) (tod. bonnieri); *λεϊος*=smooth. *ἡ πύγη*=das Hintere; 1900, 604 (renamed Liocerca Looss, 1902m, 732, 839).—Luehe, 1901, 481, 485.—Pratt, 1902, 889, 901, 905.—Stiles, 1901, 189.
- bonnieri* (Mont., 1893) Looss, 1899b, 642; 1902m, 732.—Luehe, 1901, 481.

- LOBORCHIS Luehe, in Stoss., 1902, 578-582 (tld. by Luehe mutabilis), subf. Allocreadiinae.
- fasciatum* (Rud., 1819) Stoss., 1902, 582.
- gobii* (Stoss., 1883) Stoss., 1902, 582.
- labri* (Stoss., 1886) Stoss., 1902, 582.
- mutabilis* Stoss., 1902, 579-582, 1 fig. (in *Anguilla vulgaris*; Triest); 1903, 373.
- LOBOSTOME Blainv., 1824a, 518 (type Dist. laureatum Rud.) ("Ce sont les fascioles cylindriques dont la lèvre de la ventouse antérieure est lobée, comme le dist. laureatum de Rudolphi"). Only the French form of the name was used. See Crossodera.
- LOPHOCERCARIA Dies., 1858d, 243 (m. fissicauda).
- fissicauda* Dies., 1858d, 243 (syn. Cerc. cristata Valette) (in *Lymnæus stagnalis*; L. palustris, Valvata piscinalis, Paludina impura, Planorbis submarginatus; Berlin & Turin).—Linst., 1878a, 324.
- LOPHOCOTYLE Braun, 1896b, 3, 7 (m. cyclophora), Monocotylidae.—Mont., 1903, 336 (Anisocotylinae subf.); 1905, 68-70.—Pratt, 1900, 646, 649, 650 (on skin of marine fishes), 655, fig. 19.—St.-Remy, 1898, 523, 540, 543.
- cyclophora* Braun, 1896b, 3, 7, figs. 1-3 (in *Notothenia* sp.; Navarin, Puerto Toro).—Pratt, 1900, 655, 657, fig. 19.—St.-Remy, 1898, 543-544, fig. 4.
- LOPHOTASPSIS Looss, 1901l, 7 Nov., 624-625 (m. L. adherens Looss = *Aspidogaster vallei* (Stoss., 1899)); 1902m, 415, 418-430.—Pratt, 1902, 887, 892.
- adherens* Looss, 1901l, 624-625 (in *Thalassochelys corticata*; Egypt); 1902m, 415, 418 (syn. of L. vallei).
- vallei* (Stoss., 1899) Looss, 1902m, 415, 418-430, 442, 471, 791 (amphitypie) 868, pl. 21, figs. 1-9.—Odhn., 1902, 44.
- LORIFORMIS Gæze, 1782a, 41 (= Fasc. intestinalis Linn., Fasc. abdominalis Gæze, Ligula), a "Gattung" of Fasciola Gæze.
- LOXOGENES Staff., 1905, Apr. 11, 683 (m. arcanum); λοξόγες, bent sideways, oblique; γενάω, to produce).
- arcanum* (Nickerson, 1900) Staff., 1905, Apr. 11, 683 (in *Rana catesbiana* Shaw; Canada) (syns.: Dist. medians Olss. of Staff., 1900, 412; Dist. arcanum Nickerson, 1900, 811; Pleurogenes arcanum of Pratt, 1902, 959; Brandesia medians of Pratt, 1902, 959), 685.
- LOXOSOMA Keferstein, 1862a, 131-132 (m. singulare).—Ben., 1869a, 22 (syn. Cyclatella), a bryozoon, see also Braun, 1890a, 518.—Mont., 1888a, 88.—Tasch., 1879, 56.
- annelidicola* (Ben. & Hesse, 1863) Prouhu, 1891, 91-116, pl. 5, figs. 1-16 (in Clyménien de Saint-Vaast, la Hogue).—Sons., 1895, 119.
- singulare* Keferstein, 1862a, 131-132, pl. 11, fig. 29 (λοξός, oblique; σῶμα, body) (Capitella rubicunda; St.-Vaast).
- LYPEROSOMUM Looss, 1899b, 635 (for porrectum, plesiomotum, longicauda, clathratum); λυπερος, thin; tld. longicauda; 1902m, 770; 1907, Feb. 1, 125.—Braun, 1901h, 702; 1901, 946; 1902b, 97, 106 (type longicauda), 119.—Odhn., 1902, 38.—Pratt, 1902, 889, 904.—Stiles, 1901, 190, 191.
- corrigia* Braun, 1901, 946 (in *Tetrao tetrax*); 1902b, 111, fig. 68.
- lobatum* (Rail., 1900) Braun, 1902b, 110, fig. 67.
- longicauda* (Rud., 1809) Braun, 1902b, 106, 111, fig. 65 (includes: Dist. longicauda Rud., 1809, 372; D. macrourum Rud., 1819a, 98; Linst., 1883, 309; 1886c; Dies., 1850a, 345; D. (Dicrocoelium) macrourum p. p. Stoss., 1892, 13; D. longicauda Mueh., 1896, 248, figs. 2, 9; Dicrocoelium longicauda Rail., 1900, 239).
- rudectum* Braun, 1901g, 946 (in *Ibis corulescens* Vieill.; Brazil); 1902b, 112, 113, fig. 69.
- salebrosus* Braun, 1901g, 946 (in *Cypselus melba* Ill.; Coll. Vien.); 1902b, 113, fig. 70.
- squamatum* Linst., 1906, 174, pl. 1, fig. 18 (in *Dissura episcopus*; Palatupana).
- MACRASPIIS Olss., 1868 or 1869, 2-3 (m. elegans) [nec McL., ante 1835, coleopteron].—Braun, 1893a, 879, 886, 887, 888, 890, 891, 894, 896, 898, 917, 918; 1893b, 188.—Gamb., 1896a, 73.—Looss, 1902m, 428.—Mont., 1888a, 84, 91; 1892, Oct. 7, 196, 198, 213 (gen. of Aspidobothridae).—Nickerson, 1902, 602, 604, 606, 607, 612, 614, 615, 616, 617.—Odhn., 1902, 42, 43.—Pratt, 1902, 887, 891.—Tasch., 1879, 255.
- [*calcarata* Spinola, 1835, 130-132, insect.]

MACRASPI—Continued.

elegans Olss., 1868, 2-3 (in *Chimæra monstrosa*; Skagerrack).—Braun, 1893a, 875, 898; 1893d, 467 (in *Ch. mon.*).—Jägers., 1899b, 197-214, figs. 1-9 (anatomy).—Looss, 1902m, 420.—Mont., 1892, Oct. 7, 196; 1893a, 37.—Nickerson, 1902, 614, 618 (in *Ch. mon.*; Europe).—Tasch., 1879, 255.

MACROCERCUS Hill, 1752a, 8.—Mueller, 1773, 64.—Nitzsch, 1827, 68 (contains *Cerc. gyrinus*, *C. gibba*).

MACRODERA Looss, 1899b, 604 (tod. *naja*) (not *Macroderes* Westwood, ante 1882, coleopteron) (renamed *Saphedera* Looss, 1902, 732); *μακρός*, long; *ἡ δέρη*, neck; 1900, 605; 1902m, 732, 839 (syn. of *Saphedera*).—Luehe, 1900, 557, 561.—Odhn., 1902, 41.—Pratt, 1902, 888, 900.

naja (Rud., 1819) Looss, 1899b, 604; 1901, 658; 1902m, 732.—Luehe, 1900, 556.—Rizzo, 1902, 28 (in *Tropidonotus natrix*; Catania).

MACRUROCHLETA Costa, (1864), 86-91 (? m. *acalepharum*).—Braun, 1899a, 364.—Par., 1894, 244.

acalepharum Costa, (1864), 86-91 (larva in *Acalephen*).—Mont., 1888, 77.—Par., 1894, 165 (syn. of *Cerc. setifera* Muel.) (in *Beroe* sp.; Naples), 481.

MALACOBDELLARII Mont., 1888, 94.

MALACOBOTHRIA Braun, 1893b, 188 (for *Malacobothrii*).

MALACOBOTHRII Burm., 1837, 529; 1856a, 243, 250.—Braun, 1890a, 515; 1893b, 188 (*Malacobothria*).—Mont., 1888a, 83.—Tasch., 1879, 233.

MALACOCOTYLEA Mont., 1892, Oct. 7, 213 (subo. of Trematoda); 1896, 162.—Braun, 1893a, 890, 891, 892, 895, 898 (*Malacotylea*), 917; 1893b, 188; 1895b, 136.—Gamb., 1896a, 73.—Looss, 1899b, 543.—Luehe, 1901, 488.—MacCallum, 1902, 636.—Maclaren, 1904, 579, 583, 599.—Mueh., 1898, 18.—Pratt, 1900, 645, 646, 647; 1902, 887, 891, 892 (includes: *Paramphistomidae*, *Fasciolidae*, *Schistosomidae*, *Holostomidae*, *Gasterostomidae*, *Didymozoonidae*, *Monostomidae*).—Stiles, 1898a, 27.—Ward, 1903, 864.

MALACOTYLEA Braun, 1893a, 898, for *Malacocotylea*.

MALAKOKOTYLEA Schneidemuehl, 1896, 295, for *Malacocotylea*.

MALLEOLUS Ehrenberg, 1838a, 465 (m. *furcatus*).—Burm., 1856a, 250.—Dies., 1850a, 286, 294-295 (syns.: *Vibrio* Mueller, *Cerc. Nitzsch*, *Histriionella* Bory) (mentions only *M. furcatus*); 1855a, 379, 395; 1858d, 270, 274.—Fil., 1854a, 6; 1857c, 22.—Goldb., 1855, 16.—Moul., 1856a, 121, 123-124.—Pag., 1857, 4, 5.

furcatus (Nitzsch, 1817) Ehrenberg, 1838a, 465.—Dies., 1850a, 294-295 (syns.: *Vibrio malleus* Mueller, *Zirkelthier* Eichorn, *Histriionella fissa* Bory, *Cerc. furcata* Nitzsch, *Cerc. 6* Baer); 1855a, 395; 1858d, 274 (syns. *Cerc. furcata* La Valette (in *Lymnaeus stagnalis* at Halle, *Paludina vivipara* at Berlin).—Moul., 1856a, 168 (to *Cerc.*).—Pag., 1857, 6.

MANODISTOMUM Staff., 1905, Apr. 11, 682-683 (m. *occultum*), *μαρός* = rare.

occultum Staff., 1905, Apr. 11, 682-683 (in *Diemyctylus viridescens* Raf., *Rana virescens*; Canada) (= *Dist. sp.* Staff., 1902, 482); *occultus* = obscure.

MARMOSTOMUM Looss, 1900, 605 (misprint for *Harmost.* Braun).

MAZOCRAES Hermann, 1782a, 182 (m. *alose*).—Braun, 1890a, 518.—Cerf., 1896, 516.—Dies., 1850a, 421, 422.—Mayer, 1841a, 19.—Tasch., 1879, 239.—See *Octostoma*, *Octobothrium*.

1827: *Octobothrium* Leuck., 1827 or 28, 18 (*lanceolata* = *alose*, type by inclusion), not *Octobothrium* Dies., 1850a, cestode.

1829: *Octostoma* Kuhn, 1829, 358-363 (*alose*, type by inclusion).

1850: *Octocotyle* Dies., 1850a, 289, 421-422 (*lanceolata* = *alose*, type by inclusion).

1858: *Octoplectanum* Dies., 1858e, 382 (*Octocotyle* 1850 renamed hence *alose* type).

1894: *Octocotyle* Par., 1894, 594, misprint.

alose Hermann, 1782a, 182, pl. 4, figs. 13-14 (in *Clupea alosa*).—Ben., 1858a, 1861a, 46 (syn. of *Octobothrium lanceolatum*).—Nord., 1832a, 76 (syn. of *Oct. lanc.* Leuck., 1828).—St.-Remy, 1898, 545.—Tasch., 1879, 241, 244 (syn. of *Oct. lanc.*).

MEGACETES Looss, 1899b, 630-631 (tod. *triangularis*) (not *Megacetes* Thomas, 1859, coleopteron) (*μεγακήτης* = grossschlundig); 1900, Dec. 3, 602 (renamed *Eumegacetes*).—Braun, 1902b, 53, 92 (syn. of *Eumeg.*).—Odhn., 1902, 38.—Stiles, 1901, 189.

MEGACETES—Continued.

triangularis (Dies., 1850) Looss, 1899b, 596, 631, 725–727, figs. 44–46; 1902m, 819 (=Eumegacetes emendatus Braun, 1901).—Braun, 1901, 568; 1902b, 51, 54, 93, 97 (syn. of Eumeg. em.).—Luehe, 1900, 565.

MEGADISTOMUM Staff., 1904, May 3, 488 (m. longum) (μέγας = great), 489.

longum (Leidy, 1851) Staff., 1904, May 3, 488 (in *Esox masquinongy* Mit.; Canada).

MELANOGLAENA Eichwald.—Dies., 1850a, 650.

bipunctata Eichwald, —, 78, pl. 4, fig. 3.—Dies., 1850a, 650 (in aqua salsa, Revaliæ).

MERISTOCOTYLE Rossbach, 1906, 374 (for Merizocotyle).

MERIZOCOTYLE Cerf., 1894k, 936–948 (m. diaphanum) (μερίζω = je partage) Tristomidae; 1894, 571–572; 1895, 697; 1895m, 130; 1896, 539, 540; 1898b, 329–366, pls. 13–14; 1899a, 448.—Brand., 1898a, 215 (23).—Mont., 1899, 98, 103; 1903, 336 (Anisocotyline subf.); 1905, 67, 68, 70.—Pratt, 1900, 646, 650.—Rossbach, 1906, 374 (Meristocotyle).—St.-Remy, 1898, 523, 540, 541–542.

1906: Meristocotyle Rossbach, 1906, 374, misprint.

diaphanum Cerf., 1894k, 936–948, figs. 1–6 (in *Raja batis*); 1894g, 949–954; 1895m, 129; 1895, 698–699; 1896, 539; 1898b, 329, 330–357, 358, 359, 360, 363, pl. 13, figs. 1, 3, 5, 8–11, pl. 14, figs. 1, 9 (in *Raja batis*).—Braun, 1896a, 1346.—Mont., 1899, 103.—Pratt, 1900, 655, 657, fig. 17.—St. Remy, 1898, 542, fig. 3.

minus Cerf., 1898b, 330, 357, 361, 363, pl. 13, figs. 2, 4, 6, 7 (in *Raja* sp.; Roscoff).—St.-Remy, 1898, 543.

MESAULUS Braun, 1902b, 23, 26 (m. grandis).

grandis (Rud., 1819) Braun, 1902b, 24, figs. 16–19 (syns.: Dist. grande Rud., 1819a, 676; Duj., 1845a, 446; Braun, 1901g, 564; Dies., 1850a, 346; Stoss., 1892, 2; D. convolutum (Brand.)).

MESOCOTYLE Par. & Perugia, 1889, Sept., 76–80 (m. squillarum), belongs between Dactylocotyle and Choricotyle.—Braun, 1890a, 546.—Cerf., 1895h, 920; 1896, 515.

squillarum Par. & Perugia, 1889, 76–80, 1 pl., figs. 1a–3a (in *Bopyrus squillarum*; Trieste).—Braun, 1890a, 549; 1891d, 421.—Cerf., 1898a, 302 (in Bop. sq.).—Stoss., 1898, 12.

MESOGONIMUS Mont., 1888, 15, 92, 105 (tod. Dist. reticulatum Looss, 1885; not Wright, 1879); 1892, Oct. 7, 214 (g. of Distominae); 1893a, 82, 155–157, 177.—R. Bl., 1891, 609, 610; 1895, 730.—Braun, 1892a, 696, 735; 1893a, 885, 886, 890, 892, 909, 911; 1895b, 138; 1899g, 485; 1900, 25, 31; 1900h, 2, 3, 4, 5; 1902b, 68, 129.—Looss, 1894a, 171, 173, 174; 1896b, 59; 1899b, 536, 538; 539, 542, 585, 649, 650.—Luehe, 1899, 538, 539, 540; 1900, 557.—Moniez, 1896, 89.—Odhn., 1902, 42.—Stiles & Hass., 1898a, 86, 91 (type D. reticulatum Looss).—Stoss., 1892, 4, 5, 31; 1898, 24.

aqualis (Duj., 1845) Stoss., 1892, 174 (in *Strix perlata*, S. flammea; Rennes).—Mont., 1893, 156.

commutatus (Dies., 1858) Sons., 1889, 283; 1891, 201–202 (in *Gallus dom.*, *Meleagris gallopavo*).—Hass., 1896a, 3 (syns.: Dist. dimorphum Wag., D. commutatum Dies., D. columbæ Mazzanti, Mesogonimus dimorphus (Wag.)) (in *Gallus dom.*).—Looss, 1894a, 174.—Mont., 1893, 156.—Rail., 1893a, 371 (=M. dimorphus (Wag.) Rail.).—Stoss., 1892, 175 (in *Gallus dom.*, Pisa, Nizza; *Meleagris gallopavo*, Pisa).

compactus (Cobbold, 1859) Stoss., 1892, 31, 36 (in *Mungos fasciatus*).—Mont., 1893, 156.

constrictus (Leared, 1862) Mont., 1896, 32 pp., figs. 1–22; 1896, 141–172, pl. 7–8 (in *Thalassochelys caretta*).—Mingazzini, 1900, 156.—Mont., 1896, 141 pp., pls. 7–8 (in Th. car.).—Type of *Hapalotrema*, 1899.—See mistroides.

dictyotus Mont., 1893, 156, reticulatum Looss, renamed.

dimorphus (Wagener, 1852) Rail., 1890, 143; 1893a, 371.—Galli-Valerio, 1901c, 364 (in poule).—Hass., 1896a, 3 (syn. of M. commutatus (Dies.)).—Mont., 1893, 83, 156.

heteroclitus (Mol., 1858) Stoss., 1892, 174–175; 1892, 31–32.—Mont., 1893, 156.

heterophyes (Sieb., 1853) Rail., 1890, 143; 1890, 138; 1893, 370.—R. Bl., 1895, 737–739; 1900, 488.—Braun, 1903, 3 ed., 164 (to *Cotylogonimus*).—Manson, 1903, 3 ed., 664–665.—Mont., 1893, 89, 156.—Stoss., 1892, 31–32 (in *Homo*; Cairo).—Ward, 1895, 328 (in *Homo*); 1903, 870 (to *Heterophyes*).

MESOGONIMUS—Continued.

linguiforme (Dies., 1850) Stoss., 1896, 127–128 (includes *Dist. leptosomum* Olss., *D. caudatum* Linst.); 1898, 24 (in *Erinaceus europæus*; Triest).

lorum (Duj., 1845) Mont., 1893, 156.

marginatus (Rud., 1819) Stoss., 1892, 175 (in *Ardea* sp.; Brazil).—Mont., 1893, 156.

pellucidus (Linst., 1873) Neumann, 1892, 374.—Dolley, 1894a.

pulmonale (Baelz, 1878) Stoss., 1892, 32–33 [type of *Paragonimus* Braun, 1899] (syns.: *Dist. pulmonale*, *D. westermanni*, *D. ringeri*) (in *Homo*; China, Japan, Korea, Formosa).

pulmonalis (Baelz, 1883) Rail., 1890, 143.—Looss, 1894a, 174.—Mont., 1893, 83, 89, 156.

[*reticulatus* (Looss, 1885).]

ringeri (Cobbold, 1880) Rail., 1890, 143 [=westermanii].

westermanni (Kerbert, 1878) Rail., 1890, 143; 1893, 369–370.—R. Bl., 1895, 739–740; 1895, 34–39; 1900, 488.—Braun, 1903, 3 ed., 155 (*westermani*) (to *Paragonimus*).—Mont., 1896, 168.—Vincent, 1890, 189.—Ward, 1895, 244, 328 (in *Homo*), 341 (in *Canis familiaris*); 1903, 867 (*westermanii*; to *Parag.*)

MESOMETRA Luehe, 1901d, 57–60 (tod. orbicularis), Monostomidæ.—Looss, 1902m, 442, 780, 813, 824, 838.—Pratt, 1902a, 890, 910.

brachycalia Luehe, 1901d, 51, 55–57, 59, 60, figs. 4–5 (Monost. orbiculare of Par., e. p.) (in *Box salpa*; Genoa).—Looss, 1902m, 819.

orbicularis (Rud., 1819) Luehe, 1901d, 51–55, 56, 57, 59, 60, figs. 1–3.—Looss, 1902m, 819.

MESOTRETES Braun, 1900a, 229–230 (m. peregrinus).—Pratt, 1902, 889.

peregrinus (Braun, 1900) Braun, 1900, 229–230, pl. 10, fig. 3.

METASTATICA Leuck., 1889.—Braun, 1893g, 895, 900; 1893b, 188.—Gamb., 1896, 73.—Looss, 1899b, 543.—Ward, 1903, 865.

METORCHIS Looss, 1899b, 564–566 (includes: *albidus* (tod.), *truncatus*, *complexus*, *conjunctus*, *crassiusculus*, *amphileucus*, *campula*) (*μετὰ*, behind; *ὄρχις*, testicle); 1902m, 811.—Braun, 1902b, 5, 7, 9, 11.—Luehe, 1901, 474.—Pratt, 1902, 888, 896.—Rail., 1900, 242.

albidus (Braun, 1893) Looss, 1899b, 565.—Engler, 1904, 186.—Hollack, 1902a, 868.—Luehe, 1901, 171.—Stoss., 1904, 11.

amphileucus (Looss, 1896) Looss, 1899b, 565 (*amphielucus*); 1902m, 811.—Odhn., 1902, 152.—Stoss., 1904, 11.

campula (Cobbold, 1876) Looss, 1899b, 565.

ceruleus Braun, 1902b, 11, fig. 8 (in *Cairina moschata*; Brazil).—Stoss., 1904, 11.

compascua (Kowal., 1898) Kowal., 1902d, (5) 23 (in *Anas querquedula*; Dublany); 1904a, (8) 23.

complexus (Stiles & Hass., 1894) Looss, 1899b, 565.—Hollack, 1902a, 868.—Stoss., 1904, 11.

conjunctus (Cobbold, 1860) Looss, 1899b, 565.—Stoss, 1904, 11.

crassiusculus (Rud., 1809) Looss, 1899b, 565.—Braun, 1902b, 10.—Engler, 1904, 186.—Hollack, 1902a, 868.—Kowal., 1902d, 23 (5) (corrected to *M. xanthosomus* (Crep.) Braun, 1902) (in *Anas boschas domestica*).—Luehe, 1901, 171.—Stoss., 1904, 11.

poturzyensis (Kowal., 1898) Hollack, 1902a, 868.

tener Kowal., 1903, 517, fig. 1 (in *Mergus merganser*); 1904d, 19 (4) (in *M. merg.*).—Stoss., 1904, 11.

truncatus (Rud., 1819) Looss, 1899b, 565.—Braun, 1903, 3 ed., 160, fig. 108.—Engler, 1904, 186.—Hollack, 1902a, 868.—Odhn., 1905, 339.—Stoss., 1904, 11.—Ward, 1903, 864; 1903, 704.

xanthosomus (Crep., 1846) Braun, 1902b, 7, 10, figs. 4–7.—Kowal., 1903, 517; 1904d, 23 (8).—Stoss., 1904, 11.

MICROBOTHRIUM Olss., 1869, 3–5 (only positive, hence type species *apiculatum*), Tristomidæ.—Braun, 1890a, 516, 518.—Cerf., 1898b, 362.—Looss, 1894, 9.—Mont., 1888a, 84, 88; 1891, 127, 128; 1903, 336 (*Pseudocotyle*); 1905, 70.—Pratt, 1900, 649, 655, fig. 16.—St. Remy, 1891, 213–223 (genital organs).—Tasch., 1879, 236 (syn. of *Pseudocotyle*); 1879, 49.

MICROBOTHRIUM—Continued.

apiculatum Olss., 1869, 4, fig. 13 (in *Acanthias vulgaris*; Skagerrack).—Braun, 1891d, 422; 1893b, 176, 178.—Cerf., 1898b, 341, 342.—Looss, 1894, 9.—Mont., 1888a, 88; 1891, 127.—Pratt, 1900, 655, 657, fig. 16.—St.-Remy, 1891, 213–223, 1 fig. (in *Ac. vulg.*).—Tasch., 1879, 49.

fragile Olss., 1869, 4–5, as doubtful sp. (in *Raja batis*; Norway).—Mont., 1888a, 88; 1891, 128.—St.-Remy, 1891, 213 (in *Raja batis*).—Tasch., 1879, 49.

MICROCOTYLE Ben. & Hesse. 1863; 1864, 96, 112 (either *donavini* or *labracis* should be type).—Ariola, 1899a: 1899 [in 129–138]; —, 299.—Braun, 1890a, 414, 416, 426, 428, 445, 451, 454, 458, 468, 472, 477, 484, 485, 486, 489, 490, 494, 498, 499, 500, 511, 517, 523, 540, 546; 1891d, 422; 1893a, 890; 1896b, 7.—Cerf., 1895h, 918; 1896, 514; 1899a, 403.—Cunningham, 1887a, 278.—Gamb., 1896a, 73.—Goto, 1891a, 161, 169, 170, 178, 184, 186, 187; 1891c, 103; 1893a, 798, 799, 800, fig. 1; 1900, in 351–352.—Haswell, 1892a, 459; 1892b, 150; 1893e, 114.—Hoyle, 1890, 537, 539.—Ijima, 1884c, 638, 639.—Jackson, 1888, 642, 644, 645, 646, 647, 648, 654.—Juel, 1889, 33.—Kerbert, 1881a, 573.—Lint., 1901, 414, 451 (sp.); 1905, 335, 370, 385, figs. 147–150 (sp. on *Cynoscion regalis*, *Pomatomus saltatrix*).—Lorenz, 1878a, 405–436, pls. 31–33.—Looss, 1885b, 5, 10, 15, 17, 18; 1892, 72.—Maclaren, 1904, 595.—Mont., 1888a, 7, 8, 11, 15, 34, 40, 52, 53, 55, 59, 60, 66, 86, 89, 101; 1892, Oct. 7, 213 (gen. of *Microcotylinae*); 1893, 110, 111; 1903, 336 (subf. *Microcotylinae*).—Par. & Perugia, 1890, 175–219, 3 pls.; 1890, 13; 1896, in 135–138, 2 figs; 1896 in 4 pp.; —, 653.—Pratt, 1900, 646, 650, 653, 655, 657, fig. 17, 660.—St.-Remy, 1898, 558–559.—Sons., 1891, 2 pp. (n. sp. in *Umbrina cirrhosa*).—Stoss., 1898, 14–15.—Tasch., 1879, 257; 1879, 40, 45, 46, 56, 58, 61, 62, 66, 69.

acanthurum Par. & Perugia, 1896, 2 (on *Brama rayi*; Genova).—Ariola, 1899, 5.—St.-Remy, 1898, 562.

alcedinis Par. & Perugia, 1890, 7; 1890, 744 (in *Smaris alcedo*; Genova).—Ariola, 1899, 4.—Braun, 1890a, 418, 541, 549, 552.—Goto, 1894a, 184.—Also reported for *Maena trachini*, *M. vulgaris*.

canthari Ben. & Hesse, 1863; 1864, 113–114 (in *Cantharus griseus*).—Ariola, 1899, 4.—Braun, 1890a, 418, 541, 548, 550.—Lorenz, 1878a, 434.—Stoss., 1898, 15.—Tasch., 1879, 257 (in *C. gr.*).—Also reported for *Cantharus brama*, *C. lineatus*.

caudata Goto, 1894a, 186–187 (in *Sebastes* sp.; Mitsugahama).—Ariola, 1899, 4.—Heath, 1902, 117.—St.-Remy, 1898, 559.

chiri Goto, 1894a, 193–194 (in *Chirus hexagrammus*; Hakodaté).—Ariola, 1899, 4.—Heath, 1902, 117.—St.-Remy, 1898, 561.

chrysophryi (Ben. & Hesse, 1863) Braun, 1890a, 410 (*chrysophrii*), 418, 541, 548, 550.—Ariola, 1899, 5 (*chrysophrii*).—Lint., 1878a.—Mont., 1888a, 8 (*chrysophrii*).—Par. & Perugia, 1890, 8 (*chrysophrii*); 1894, 137 (in *Chrysophrys aurata*; Triest. Genova, Venice).—Stoss., 1891, 110; 1898, 15 (in *Chr. aur.*; Triest).—Tasch., 1879, 257 (in *Chr. vulgaris*).

donavani Mont., 1888a, 16, for *donavini*.

donavini Ben. & Hesse, 1863; 1864, 114–115, pl. 12, figs. 1–11 (in *Labrus donavini*).—Ariola, 1899, 4 (*donavani*).—Braun, 1890a, 410, 418, 498, 541, 548, 551.—Mont., 1888a, 16 (*donavani*).—Scott, 1905, 116–117, pl. 6, fig. 21 (in *Lab. bergylta* Ascan).—Tasch., 1879, 257 (in *Lab. don.*).

draconis Briot, 1904, Jan. 29, 126–127 (in *Trachinus draco* L.; Manche, North Sea).

elegans Goto, 1894a, 188–189 (in *Scombrops chilodipteroides*; Misaki).—Ariola, 1899, 4.—St.-Remy, 1898, 559–560.

erythrini Ben. & Hesse, 1863; 1864, 115–116 (in *Pagellus erythrinus*).—Ariola, 1899, 4.—Braun, 1890a, 418 (*erythrini*), 453, 498, 541, 548, 551.—Par. & Perugia, 1890, 8; 1894, 136 (in *Box boops*; Genova).—St.-Remy, 1898, 546.—Tasch., 1879, 257 (in *Pag. ery.*).

erythrini Braun, 1890a, 418 (for *erythrini*).

fusiformis Goto, 1894a, 192–193, pl. 2, fig. 3, pl. 4, fig. 6, pl. 5, fig. 1 (in *Centronotus rubulosus*; Mitsugahama).—Ariola, 1899, 4.—St.-Remy, 1898, 561.

hiatulæ Goto, 1899a, 281–282, pl. 21, fig. 29 (in *Hiatula onitis*; Newport, R. I.).

labracis Ben. & Hesse, 1863; 1864, 112–113, pl. 12, figs. 12–18 (in *Labrax lupus*).—Ariola, 1899, 4.—Braun, 1890a, 418, 443, 477, 488, 498, 514, 541, 548, 551.—Gamb., 1896a, 58, fig. 25c.—Mont., 1888, 8, 16, 66; 1893, 111.—Par. & Perugia, 1890, 8, 12; 1894, 136–137 (in *Labrax lupus*; Genova).—Scott, 1905, 117, pl. 6, fig. 23.—Stoss., 1898, 15–16.—Tasch., 1879, 257 (in *Labrax lup.*).

MICROCOTYLE—Continued.

lichia Ariola, 1899, 1-5, pl. 1, figs. 1-5 (in *Lichia amia*; Genova).

longicauda Goto, 1899a, 282-283, pl. 21, figs. 30-31 (in *Cynoscion regale*; Newport, R. I.).—Pratt, 1900, 657, 661, fig. 39.

mormiri Mont., 1888, 34, for *mormyri*.

mormyri Lorenz, 1878a, 425-434 (21-30), pl. 3, figs. 1-6 (on *Pagellus mormyrus*; Trieste).—Ariola, 1899, 4.—Braun, 1890a, 410, 418, 443, 452, 477, 488, 541, 548, 551.—Goto, 1894, 184.—Hoyle, 1890, 539-540, fig. 3c.—Juel, 1899, 36.—Linst., 1889a.—Par. & Perugia, 1890, 745 (in *Pagellus mormyrus*); 1890, 8; 1894, 137 (Triest; Genova).—Mont., 1888, 10, 16, 30, 34 (*mormiri*). 66; 1893, 111.—Stoss., 1898, 16.—Tasch., 1879, 257 (in *Pag. morm.*; Trieste); 1879, 35.—Ziegler, 1883, 546.

mugilis Vogt, 1878, May 7, 327-332, pl. 14, fig. 3 (in *Mugil cephalus*; Roscoff).—Ariola, 1899, 4.—Braun, 1890a, 514, 541, 548, 551.—Goto, 1894a, 183 (in *M. ceph.*).—Par. & Perugia, 1890, 4, 8, 12; 1894, 136 (*M. ceph.*; Genova).—Sons., 1891, 253-254 (*mugylis*) (in *M. ceph.*).—Tasch., 1879, 257 (in *M. ceph.*; Roscoff).

mugylis Sons., 1891, 253-254, for *mugilis*.

pancerii Sons., 1891, 303-304 (in *Umbrina cirrhosa*; [?Pisa], Italy).—Ariola, 1899, 5.—Braun, 1893b, 184 (in *Umb. cirr.*).—Goto, 1894a, 184.

pomatomi Goto, 1899a, 278-279, pl. 21, fig. 27 (in *Pomatomus saltatrix*; Newport, R. I.).—Pratt, 1900, 660.

reticulata Goto, 1894a, 189-191 (in *Stromateus argenteus*; Mitsugahama).—Ariola, 1899, 5.—St.-Remy, 1898, 560.

salpæ Par. & Perugia, 1890, 207, pl. 5, fig. 34 (in *Box salpa*); 1894 (at Genova).—Ariola, 1899, 5.—Goto, 1894a, 184.—Sons., 1891, 262 (in *B. sa.*).

sargi Par. & Perugia, 1890, 4, 7, 11 (*sargii*); 1890, 744 (in *Sargus rondeletii*; Genova); 1894 (in *Sargus rondeletii*, *S. annularis*, *S. salviani*; Genova).—Ariola, 1899, 4.—Braun, 1890a, 418, 514 (*sargii*), 541, 549, 552.—Goto, 1894a, 184 (in *Sargus annularis*, *S. rondeletii*, *S. vulgaris*).

sargii see *sargi*.

sciaenæ Goto, 1894a, 194-196 (in *Sciaena sina*; Mogi).—Ariola, 1899, 4.—Heath, 1902, 117.—St.-Remy, 1898, 561-562.

sebastis Goto, 1894a, 187-188 (in *Sebastes* sp.; Hakodaté).—Ariola, 1899, 4.—St.-Remy, 1898, 559.

stenotomi Goto, 1899a, 279-281, pl. 21, fig. 28 (in *Stenotomus chrysops*; Newport, R. I.).—Pratt, 1900, 660.

trachini Par. & Perugia, 1889, 744-745 (in *Trachinus radiatus*; Genova); 1890, 744-745; 1890, 7, 10.—Par., 1894, 136, 594, 595.—Ariola, 1899, 4.—Braun, 1890a, 418, 541, 549, 552.—Briot, 1904, 127 (in *Tr. rad.*).

truncata Goto, 1894a, 191-192 (in *Pristipoma japonicum*; Mitsugahama).—Ariola, 1899, 4.—St.-Remy, 1898, 560.

MICROCOTYLIDÆ Tasch., 1879, 235, 237, 255; 1879, 69.—Braun, 1890a, 511, 516, 517, 523, 533, 540, 546.—Cerf., 1899a, 365, 452.—Hoyle, 1890, 539 (includes: *Axine*, *Microcotyle*, *Gastrocotyle*, *Aspidogaster*, *Cotylaspis*, *Aspidocotyle*).—Jackson, 1888, 654 (includes: *Axine*, *Microcotyle*, *Aspidogaster*, *Cotylaspis*).—Mont., 1888, 8, 10, 11, 13, 15, 16, 20, 30, 34, 37, 66, 86, 88, 89, 91, 101, 108; 1892, Oct. 7, 196, 197; 1903, 336 (raised from subf. to fam. rank; subf. *Microcotylinae* (g. *Microcotyle*); 2. *Axininae* (g. *Axine*, *Pseudaxine*, *Gastrocotyle*).—Par. & Perugia, 1890, 7.

MICROCOTYLINÆ Mont., 1892, Oct. 7, 213 (subf. of *Polystomidæ*); 1903, 336.—Braun, 1893a, 890.—Gamb., 1896, 73.—Pratt, 1900, 646, 653 (includes: *Microcotyle*, *Gastrocotyle*, *Axine*, *Pseudaxine*).—St.-Remy, 1898, 558.

MICROLISTRUM Braun, 1901f, 563 (tod. *cochleariiforme*); 1902b, 55.—Pratt, 1902, 889.

cochlear (Dies., 1850) Braun, [1901f, 563;] 1902b, 58, 59, fig. 36 (syns.: *Dist. cochleariiforme* p. p. Rud., 1819; Duj., 1845; Stoss., 1892, 37; *D. cochlear* Dies., 1850; Stoss., 1892; *D. diesingi* Cobbold, 1861).

cochleariiforme (Rud., 1819) Braun, [1901f, 563;] 1902b, 56, 58, fig. 35 (syn. *Dist. cochleariiforme* Rud., 1819; Duj., 1845; Dies., 1850; Stoss., 1892).

spinetum Braun, 1901f, 563 (in *Rhynchops nigra* L.; Brazil) (syn. *Dist. attenuatum* Brems. MS.); 1901, 895; 1902b, 56, 59, 60, figs. 37-39.

- MICROPHALLINE Ward, 1901, 185.—Jægers., 1903a, 14.—Odh., 1905, 318.—Pratt, 1902, 889, 903 (includes: *Microphallus*, *Levinseniella*).—Stoss., 1904, 198.
- MICROPHALLUS Ward, 1901, 175–185 (m. *opacus*); 1902, 17 June, 361; 1903, v. 3, [71–83], 175–187, pl. 26, figs. 1–5.—Jægers., 1903a, 14.—Looss, 1902, 426.—Odh., 1905, 317.—Pratt, 1902, 889, 903.—Staff., 1903, 824—Stiles & Hass., 1902d, 20.
- opacus* (Ward, 1894) Ward, 1901, 184.—Staff., 1903, 824.
- MICROPHARYNX Jægers., 1897a, 707–714 (m. *parasitica*) [an ectoparasitic triclade turbellaria].
- parasitica* Jægers., 1897a, 707–714, figs. 1–3 (on *Raja clavata*, R. *lævis*; Kattegat) (? syn. *Microbothrium fragile*).—Braun, 1900, 70.—Graff, 1904, 457.—Staff., 1904, May 3, 482 (syn. *Pseudocotyle fragile* Olss.) (on *Raja lævis*; Canada).
- MICROSCAPHA Looss, 1899b, 668–669, 769 (tod. *reticularis*) [not *Microscapha* Le Conte, 1866, coleopteron] ἡ *σκαφη*=Kahn, Nachen; 1900, Dec. 3, 602 (renamed *Microscaphidium*).—Stiles, 1901, 189.
- linguacula* Looss, 1899b, 668, 766–767 (in *Chelonia mydas*; Egypt), 768, 772, 773, fig. 87.—Braun, 1901b, 38, 54, type of *Polyangium* 1902.
- reticularis* (Ben., 1859) Looss, 1899b, 668, 763–766 (in *Chelonia mydas*; Egypt), 767, 768, 770, fig. 81.
- sagitta* Looss, 1899b, 668, 770, 772–773, fig. 88 (in *Chelonia mydas*; Egypt).—Braun, 1901b, 38, 54, type of *Octangium* 1902.
- MICROSCAPHIDIINE Looss, 1900, 605; 1902m, 696, 699, 841.—Pratt, 1902, 890, 909 (includes *Microscaphidium*, *Deuterobaris*).
- MICROSCAPHIDIUM Looss, 1900, Dec. 3, 602 (*Microscapha* Looss, 1899, not Le Conte, 1866, renamed, hence type *reticulare*); 1901, 200; 1902m, 442, 630, 632, 634, 642, 643, 647, 649, 651, 652, 658, 660, 665, 666, 667, 668, 675, 677, 681, 684, 690–691, 694, 695, 696, 698, 699, 805, 811, 824, 879 (type *reticulare*).—Pratt, 1902a, 890, 909.
- aberrans* Looss, 1902m, 630, 677, 692–693, 697, 698, 879, 881, pl. 28, figs. 106, 117–121 (in *Chelone mydas*; Egypt).
- linguacula* (Looss, 1899) Looss, 1902m, 688 (to *Polyangium* as type), 694, 695, 696, 697, 698, 811.
- parallelum* Looss, 1901l, 622 (in *Chelone mydas*; Egypt); 1902m, 689 (type of *Angiodictyum*), 690, 696.
- reticulare* (Ben., 1859) Looss, 1901l, 622; 1902m, 630, 632, 662, 677, 689, 690, 691–692, 693, 694, 695, 696, 697, 698, 879, pl. 28, figs. 105, 107–116.
- sagitta* (Looss, 1899) Looss, 1901l, 621; 1902m, 627, 685 (to *Octangium* as type), 694, 695, 696, 811.
- MICROSCAPHINE Looss, 1899b, 667; 1900, 605.
- MIMODISTOMUM Staff., 1904, May 3, 488–489 (m. *augusticaudum*) (*μῖμος*=imitator).
- augusticaudum* Staff., 1904, May 3, 488–489 (in *Lota maculosa* Le S., *Stitzostedion vitreum* Mit.; Canada).
- MIRACIDIUM Braun, 1892a, 776, refers to the trematode embryo; not used as generic name.
- MONOCECUM Staff., 1903, 822 (m. *baryurum*).
- baryurum* Staff., 1903, 822–824, figs. 1–3 (in *Necturus maculatus* Raf.; near Montreal); 1905, 682.—Linst., 1905, 418, 422 (*brachyurum*).
- brachyurum* Linst., 1905, 418, 422, misprint for *M. baryurum*.
- MONOCERCA Wedl, 1861, 478–479 (m. *heterobranchi*).
- heterobranchi* Wedl, 1861, 478–479, pl. 3, fig. 39 (in *Heterobranchus anguillaris*; Cairo, Egypt).—Brand., 1888a, 15, 52; 1890a, 578.—Braun, 1892a, 796.—Linst., 1879a.
- MONOCERCE Dies., 1855a, 384; 1858d, 243.—Mont., 1888a, 94.
- MONOCOECUM Linst., 1905, 418, 422, for *Monocæcum* Staff.
- brachyurum* Linst., 1905, 418, 422, for *baryurum*.
- MONOCOTYLA Blainv., 1828a, 556, Trematode fam. name, includes: *Axine*, *Branchiobdella*, *Capsala*, *Epibdella*, *Erpobdella*, *Geobdella*, *Glossobdella*, *Hippobdella*, *Iatrobella*, *Ichthyobdella*, *Malacobdella*, *Nitzschia*, *Palæobdella*, *Pontobdella*, *Pseudobdella*.

MONOCOTYLE Tasch., 1878, 573, 574 (m. *myliobatis*); 1879, 57, 68; 1879, 236.—Braun, 1890a, 412, 415, 442, 484, 511, 516, 517, 523, 530, 531; 1893a, 890; 1896b, 7.—Cerf., 1894, 947; 1898b, 362.—Gamb., 1896a, 73.—Goto, 1893a, 798; 1894a, 229.—Hoyle, 1890, 539 (only one species, *myliobatis*) (in *Myliobatis aquila*).—Jackson, 1888, 653.—Mont., 1888a, 13, 34, 66, 88, 98; 1891, 108; 1892, Oct. 7, 213 (g. of *Monocotylidæ*); 1903, 335 (subf. *Monocotylinae*; f. *Monocotylidæ*); 1905, 69.—Pratt, 1900a, 646, 650, 656, fig. 21.—St.-Remy, 1898, 523, 541.—Stoss., 1898, 9.

ijima Goto, 1894a, 230–232 (in *Trygon pastinaca*: Aug., Hiroshima.)—Braun, 1896a, 1346.—Cerf., 1895m, 130; 1896, 539, 540; 1898b, 338, 341, 347, 352.—St.-Remy, 1898, 541.

myliobatis Tasch., 1878, 574 (in *Myliobatis aquila*; Naples).—Braun, 1890a, 418, 488, 494, 531, 548, 551.—Cerf., 1894, 948.—Hoyle, 1890, 539.—Linst., 1889.—Par. & Perugia, 1890, 6.—Par., 1894, no. 726, 1022, 1059, 1060.—Pratt, 1900a, 656, 657, fig. 21.—Sons., 1890, 173 (in *My. aq.*).—Stoss., 1898, 9.

MONOCOTYLEA Dies., 1850a, 288, 290, 331, 431 (tribus II of *Bdellidea* Blainv.), 649 (tribus I of *Myzelmintha*); 1858, 312, 329.—Braun, 1890a, 515.—Goldb., 1855, 17, 20.—Mol., 1858, 128; 1858, 288.—Mont., 1888, 83, 84.—Stiles & Hass., 1898a, 90, 91.—Tasch., 1879, 233, 234.—Weinland, 1859, 280.

MONOCOTYLIDÆ Tasch., 1879, 235, 236, 238; 1879, 68.—Braun, 1890a, 516, 517, 523, 526, 530; 1893a, 890; 1896b, 7.—Cerf., 1894, 946, 947, 948; 1898b, 361, 362; 1899a, 411.—Goto, 1899, 291.—Hoyle, 1890, 539 (includes: *Calicotyle*, *Pseudocotyle*, *Monocotyle*).—Jackson, 1888, 653 (includes: *Calicotyle*, *Pseudocotyle*, *Monocotyle*).—Mont., 1888, 15, 34, 86, 88, 97, 108; 1891, 108, 127; 1892, Oct. 7, 197, 213 (f. of *Eterocotylea*) (raised to fam. from subf. by Leuck.; contains: *Pseudocotyle*, *Calycotyle*, *Monocotyle*); 1903, 336 (includes subf.: *Monocotylinae* (g. *Monocotyle*), *Pseudocotylinae* (g. *Pseudocotyle*=*Microbothrium*), *Calycotylinae* (g. *Calicotyle*), *Anisocotylinae* (g. *Anoplodiscus*, *Merizocotyle*, *Lophocotyle*, *Dionchus*); 1905, 69, 70.—Pratt, 1900a, 646, 649 (includes: *Monocotyle*, *Calicotyle*, *Lophocotyle*, *Dionchus*, *Merizocotyle*, *Microbothrium*, *Pseudocotyle*).—St.-Remy, 1891, Dec., 480–481; 1891, Oct., 600.—Stoss., 1898, 8.

MONOCOTYLIDES St.-Remy, 1891, 225–227 (nervous system of); 1891, 480–481; 1891, 600; 1892, 1 Nov., 45–52, 2 figs. (anatomy of).

MONOCOTYLINÆ Gamb., 1896a, 73.—Mont., 1903, 335; 1905, 69.—St.-Remy, 1898, 522, 540.

MONOGENA Mont., 1888, 85, 95, 96 (for *Monogenea*).

MONOGENEA Haswell, 1892a, 457, 458, 460; 1893e, 127, 145 (for *Monogenea*).

MONOGENEA Ben., 1858 (*Monogénèse*), see Brand., 1891d, 7, 9; 1894a, 305.—Braun, 1883a, 58; 1890a, 407, 473, 516, 517, 520, 522; 1891d, 421; 1893a, 888; 1893b, 187, 188; 1895b, 131, 136.—Carus, 1863, 477.—Cerf., 1894, 947.—Dieckhoff, 1891, 245–276, 1 pl.—Gamb., 1896a, 73.—Goto, 1893a, 801.—Haswell, 1892a, 457, 458, 460 (*Monogenæa*); 1893e, 127, 145 (*Monogenæa*); 1892, 150.—Hoyle, 1890, 539 (includes: *Tristomæ*, *Polystomæ*).—Kath., 1894a, 144.—Kholodk., 1899a, 148–149.—Knoch, 1894a, 11.—Kofoid, 1899, 183.—Looss, 1892a, 116; 1893b, 819.—Mont., 1888, 85, 95, 96 (*Monogena*); 1903, 334.—Odhn., 1902, 42, 43, 44; 1905, 370.—Pratt, 1900a, 645, 646.—Tasch., 1879, 234.

MONOGENETICA Haswell, 1893e, 144, 145.

MONORCHEIDES Odhn., 1905, 319–320 (m. *diplorchis*).

diplorchis Odhn., 1905, 318–320, pl. 4, fig. 1 (in *Lumprenus medius*; off Kings Bay, west side of Spitzbergen.)

MONORCHEIDINÆ Odhn., 1905, 320.

(MONORCHIS) Mont., 1893, 149, subg. of *Dist.*, 150, 151 [type by absolute tautonymy *D. monorchis*] [not *Monorchis* Bastian; not *Monorchis*^a Clerc., 1902, cestode].—Braun, 1893a, 894.—Looss, 1902i, 115–122; 1902k; 1903h; 1905h.—Luehe, 1900, 489.—Odhn., 1905, 319, 320.—Stiles & Hass., 1898a, 91, 98 (type by absolute tautonymy *monorchis*).

pachysomum (Eysenhardt, 1829) Mont., 1893, 151.—Looss, 1902i, 199, type of *Haploplanchnus*.

monorchis (Stoss., 1890) Mont., 1893, 151.

^a Cestode species: *ciroসা*, *crassirostris*, *dujardini*, *filum*, *hirsutum*, *penetrans*, *pseudofilum*.

- MONORCHIS (Mont., 1893), type monorchis.—Looss, 1902i; 1902k; 1903n; 1905h.
monorchis (Stoss., 1890) Looss, 1902i, 117, fig. 1 (in *Cantharus orbicularis*, *Oblata melanura*; Triest).
parvus Looss, 1902i, 118, fig. 2 (in *Sargus annularis*, *S. rondeletii*; Triest).
- MONOSICHYA Braun, 1890a, 401. See Monossichya.
- MONOSSICHYA Cosmovici, 1887, supergeneric (includes Monostomum).—Mont., 1888a, 84, see Monosichya.
- MONOSTAMA Mégnin, 1890c, 88, 89, for Monostoma.
- MONOSTOMA^a Zed., 1800a, 16, 147–160 (*Festucaria* Schrank, renamed, hence type anatis).—Andral, 1829, 617.—Baillet, 1866b, 107.—Bellingham, 1844a, 335–336.—Ben., 1858a, 1861a, 69; 1870, 363; 1870c, 142.—Ben. & Hesse, 1864, 61.—Blainv., 1828a, 582.—E. Bl., 1847, 303–304.—R. Bl., 1888a, 541, 542.—de Bonis, 1882, 103.—Brand., 1888a, 12; 1892, 504–511 (revision).—Braun, 1883a, 52, 59; 1890a, 514, 515; 1892a, 681, 696, 710, 722, 748, 768, 769, 770, 772; 1893a, 872, 879, 884, 886, 887, 890, 893, 894, 895, 896, 913, 914, 918; 1895b, 121, 128, 134, 137, 154; 1901, 561.—Bremser, 1824, 132.—Burm., 1837, 530.—Carus, 1863, 479.—Cerf., 1894, 946; 1898b, 356 (sp. in *Cygnus musicus*).—Cohn, 1904, 235, 237.—Cosmovici, 1887a, 128, 129.—Crep., 1829, 1, 49 (Monostomum); 1839, 285.—Dav., 1877, 73.—Deslongchamps, 1824ee, 551, 555.—Dies., 1834a, 1231; 1850a, 287, 319–331 (syns. *Cucullanus* Mueller ["*Cuculanus*"], *Festuc. Schrank*, *Fasc. Goeze*, *Amphist. Rud.*, *Dist. Zed.*, *Monost. Zed.*), 400 (syn. of *Amphist.*), 411 (syn. of *Notocotyle*), 414 (syn. of *Aspidogaster* Baer), 609 (of Numan; syn. of *Pentast.*); 1855a, 380 (cf. *Cheilost.*), 384; 1855, 62; 1858e, 312, 324–329.—Duj., 1845a, 342–343.—Dunglison, 1893, 1174.—Eichwald, 1829a, 249.—Eiss, 1838, 23.—Fischer, 1840, 156.—Fischder., 1902a, 6.—Gamb., 1896a, 73.—Goldb., 1855a, 17, 27.—Gunther, 1858, 205.—Hahn & Lefèvre, 1884, 806 (of Rud.).—L'Herminier, 1826, 10.—Hoyle, 1890, 535, 539 (type mutabile).—Jackson, 1888, 644, 654.—Jägers., 1901, 979.—Joy, 1835a, 504.—Kholodk., 1898, 33, 34; 1899a, 153.—Kolenati, 1857, 11.—Kuech., 1855, 180.—Lamarck, 1816, 185–186.—Lamouroux, 1822a, 194.—Leuck., 1863a, 61, 66, 451, 524, 632–633; 1879, 78; 1886d, 34, 59, 64.—Linst., 1901, 2.—Looss, 1885b, 56; 1896b, 147; 1899b, 658; 1901, 192, 193 (*ocreatum* = *Dist. lorum* Meln.; *verrucosum* to *Notocotyle*; *bombynae* = *M. ellipticum* = *Dist. variegatum*; *mutabile* = type of *Cyclocelum*; *prismaticum* = type by elimination); 1902m, 562, 564, 566, 568 (*prismaticum* type after Looss, 1901, but a *distome* after Mont., 1892; *mutabile* type of *Cyclocelum* Brand. in 1892; type of *Monost.* by elimination after Luehe, 1901; see also Looss, 1902m, 707; *mutabile* might be type, Looss, 1902m, 719), 700, 701, 702, 703, 707, 710, 719, 720, 721, 728, 729, 730, 746, 812, 813, 842.—Luehe, 1901, 174, 175; 1901, 481.—Mayer, 1841, 4.—Moniez, [1899a], 159.—Mont., 1888, 7, 11, 64, 69 (*Monostomum*), 71, 73, 83, 84, 93, 106; 1892c, 514–534, figs. 1–22 (sp. in *Box salpa*); 1892d, 23 pp., 22 figs.; 1892, 31; 1892, Oct. 7, 183, 189, 199 (syn. of *Aspidogaster* (of Rud.)), 214 (g. of *Monostomidae*); 1892, 709 (*Monostomum*); 1893, 15, 25, 27, 105, 115.—Moul., 1856a, 12, 15.—Nord., 1840, 614, 622–623.—Olfers, 1816, 22, 48.—Par., 1887, 327.—Pratt, 1900a, 645; 1902a, 890.—Rail., 1891, 26.—Ratzel, 1868, in 19 pp.—Rud., 1809a, 5, 20–21, 36–37, 325, pl. 12, fig. 5; 1819a, 82, 340, 583.—Schneidemuehl, 1896, 295.—Schneider, 1866, 334.—Sieb., 1854, 20, 29.—Stiles, 1902s, 28.—Stoss., 1898, 63.—Tasch., 1879, 232, 233, 258 (syn. of *Aspidogaster* Baer); 1879, 611.—Villot, 1878, 19.—Vogt,

^a *Monostoma* represents a complicated case, so far as its type is concerned, and well represents "a ship without a rudder."

There can be no question but that *Monostoma* was a deliberate renaming of *Festucaria* 1788, the name being changed for purely subjective reasons. The fact that Zeder did not specifically mention the original species of *Festucaria* does not seem to bear upon the question, for he gave "die mir bekannten Arten," and he refers to the original reference of *Festucaria*; thus the case is similar to *Tænia* Linn., 1758a, renamed *Alyselminthus* Zed., 1800. In our opinion the type must be the same as that of *Festucaria*, and this has been fixed by elimination to *Festucaria anatis*. The question whether or not this is a species inquirenda can not, so far as we see, come up at present. A deliberate renaming deserves to be treated in only one way and, logically, we see only one way to treat it.

Hoyle (in 1890, probably 1888, possibly earlier) designated *mutabile* as type of *Monostoma*. Looss (1901) by elimination designated *prismaticum* as type.

Had *Monostoma* not been a case of renaming, we should accept Hoyle's designation.

MONOSTOMA—Continued.

- 1878, 9, 10.—Wagener, 1854, 10–11; 1883, 122.—Wallenstedt, 1847, 7.—Walter, 1892, 11 July, 248–250 (in intestine of turtle).—Wedl, 1855, 380, pl. 2a, fig. 14 (sp.).
- 1815: Monostomeus Rafinesque, 1815, 151, *Festucaria* renamed.
- 1829: Monostomum Crep., 1829, 1, 49, for Monostoma.
- 1888: Monostomum Mont., 1888a, 69, misprint.
- 1891: Monostomum Brand., 1891d, 19, misprint.
- 1892: Monostomum Mont., 1892, 709, misprint.
- 1904: Monostromum Linst., 1904, 254, misprint.
- acreatum* Stoss., 1892, 18, misprint for *ocreatum*.
- aculeatum* Linst., 1879b, 338 (in *Testudo graeca*; loc. not given); 1889.—Brand., 1892, 509.—Braun, 1893a, 915; 1899, 630; 1901a, 13, 14.—Looss, 1899b, 567.—Luehe, 1899, 528.—Mont., 1892, 686, 687, 697, 705, 715.—Stoss., 1895, 224 (=Dist. linstowi Stoss.); 1898, 43 (in Test. gr.; Triest).
- affine* Leidy, 1858, 110–111 (t. h. *Fiber zibethicus*; U. S. A.); 1904a, 111.—Brand., 1892, 510.—Braun, 1893a, 875, 915; 1893d, 466 (in *F. zib.*); 1901e, 344.—Dies., 1859c, 425.—Mont., 1892, 685, 696, 697, 698, 703, 711.
- album* Kuhl & van Hasselt, 1822a, 311 (in *Chelonia midas*; Iles des Cocos-tiers).—Braun, 1899b, 721, 723–724; 1901a, 38, 44, 45–48, 52.—Crep., 1846, 146.—Dies., 1850a, 325 (=M. *trigonocephalum* Rud.).—Looss, 1899b, 667, 756, 762 (type of *Cricocephalus*); 1902m, 531.—Shipley, 1900, 532.
- alveatum* Mehlis, in Crep., 1846, 142 (in *Anas fusca*, A. *glacialis*), 143 (in A. *leucophthalma*, A. *mollissima*, A. *penelope*), 144 (in *Cygnus musicus*).—Brand., 1892, 508.—Braun, 1893a, 879.—Cobbold, 1860a, 40.—Cohn, 1904, 229 (of Mueh., 1898) (syn. of M. *alveiforme* Cohn), 230.—Crep., 1846, 141, 142–144; 1851, 291.—Dies., 1850a, 331 (in *Anas fusca*, A. *glacialis*, A. *marila*, A. *mollissima*, A. *musicus*, A. *penelope*); 1858e, 328 (in *Anas anser ferus*).—Looss, 1899b, 662.—Mont., 1892, 38, 39, 41 (to *Notocotyle*); 1892, 706, 709.—Mueh., 1898, 19 (in *Fuligula marila*; Pillau); 1898, 31, 101–102, fig. 3.—Reported also for *Anas bernicla*, A. *cinereus*.
- alveiforme* Cohn, 1904, 230 (*alveatum* Mehlis of Mueh., 1898, renamed).
- amiuri* Staff., 1900, 402–403, fig. 2 (in swim bladder of *Amiurus nebulosus*); 1904, May 3, 495 (Canada).
- angustum* Schlotthauber, 1860, 129 (int. of *Scolopax gallinago*).
- arcuatum* Brand., 1892b, 507 (to *Cyclocœlum*) (in aquatic birds), 508.—Braun, 1893a, 915; 1899, 467.—Looss, 1899b, 660, 661.—Stoss., 1902, 5, 6, 21, to *Cyclocœlum* (syns. Monost. *mutabile* of Sieb., 1835, 49, pl. 1; Dies., 1858, 325; Dav., 1877a, lxxiii; Mueh., 1898, 31) (in *Anas clangula*; Berlin, supposed to be based on Brandes' orig. material) (also in *Anas dom.*; Berlin).
- armatum* Mayer, 1841a, 4, *Echinorhynchus* renamed.
- asperum* Nitzsch, in Crep., 1849a, 71 (in *Anas fuligula*); in Giebel, 1857, 265 (in *Mergus albellus*, *Anas clangula*).—Brand., 1892, 507.—Braun, 1893a, 871.
- asperum* Vaillant, 1863, 347–348 (in *Siren lacertina*).—Mont., 1892, 715.
- attenuatum* Rud., 1809a, 328–329 (t. h. *Scolopax gallinago*, ceca; Greifswald) (to Monost. (Monost.)); 1819a, 84.—Baillet, 1866b, 107.—Bellingham, 1844a, 336.—Brand., 1892, 508.—Braun, 1891, 90; 1891d, 434 (in *Anas boschas*); 1893a, 874, 879, 916.—Cobbold, 1860a, 40.—Crep., 1839, 285; 1846, 141–142, 144–145; 1849, 1, 71; 1851, 1, 290.—Dav., 1877a, lxxiii.—Dies., 1850a, 322–323; 1858e, 325 (in *Anas tadorna*, A. *penelope*, A. *albifrons*, A. *marila*).—Duj., 1845a, 350.—Hass., 1896a, 3 (syn. of *Notocotyle verrucosum* (Frœlich)).—Looss, 1896, 192; 1899b, 662, 663.—Luehe, 1898, 625.—Mol., 1859, 824–825 (in *Anas clangula*, A. *clypeata*, A. *ferina*, A. *fuligula*, A. *fusca*, A. *musicus*, *Anser dom.*, *Mergus merganser*, *M. serrator*).—Mont., 1892, 38, 39, 41 (syn. of *Noctocotyle verrucosum* Frœlich); 1892, 706, 709.—Mueh., 1898, 31.—Nicoll, 1906, 515 (in *Harelda glacialis*).—Olfers, 1816, 48.—Rail., 1893a, 338 (of Mol.=M. *mutabile* Zed.), 340 (of Rud.=*Notocotyle verrucosum*).—Schlotthauber, 1860, 129.—Reported also for *Anas glacialis*, *Anser cinereus*, *Cygnus musicus*, *Fuligula cristata*, *F. ferina*, *F. marila*.
- bijugum* Miescher, (1838a), pp. 28, pl. 1; 1838b, 154–158.—Baird, 1853a, 45.—Ben., 1858a, 1861a, 179, 188, 198, 200, 201.—Brand., 1891b, 265.—Dies., 1850a, 321 (syn. of M. *faba* Bremser).—Nord., 1840, 616, 625 (syn. M. *faba*).—Sieb., 1839, 160–162.—Tasch., 1879, 608 (syn. of M. *faba*).

MONOSTOMA—Continued.

- bipartitum* Wedl., 1855, 378–380, 393, pl. 1a, figs. 11–13 (t. h. *Thynnus vulgaris*).—Ariola, 1902, 100, 101 (of Wagener, form 2, syn. of *Didymocystis reniformis*), 103 (of Wedl, and of Wagener, form 1, syn. of *Didymost. bipartitum*, type), 105 of Wagener, form 3, syn. of *Didymocistis wedli*).—Braun, 1892a, 573, 660; 1893a, 894.—Darr, 1902, 661.—Dies., 1858e, 327 (in *Thyn. vulg.*); 1859c, 426.—Gamb., 1896a, 71.—Leuck., 1863a, 453.—Mont., 1888a, 9, 93; 1892, 714.—Par. & Perugia, 1889 or 1890, 746 (syn. of *Didymozoon thynni* Tasch.); 1893, 2.—Stoss., 1898, 62.—Tasch., 1879, 72; 1879, 606, 611, 612 (syn. of *Didymozoon thynni* Tasch.).—Wagener, 1858, 250, 252–256, pl. 10, figs. 1–10 (in *Thynnus vulgaris*; Niceæ).
- blainvillei* Cobbold, 1860a, 39 (*Monost. delphini* Blainv., renamed) (in *Delphinus dalei*).—Mont., 1892, 712.
- bombynx* Zed., 1800a, xvi, 151, 160 (t. h. *Rana bombya*, lungs; Europe); 1803a, 190.—Baird, 1853a, 53 (= *Dist. variegatum*).—Dies., 1850a, 322 (syn. of *M. ellipticum* Rud.).—Looss, 1894a, 71 (syn. of *Dist. variegatum* Rud.); 1901, 192.—Rud., 1809a, 333 (= *M. ellipticum*).
- braunii* Cobbold, 1860a, 43 (*M. murænulæ* Rud.) (in *Coregonus murænula*).
- caouanæ* Kollar, in Braun, 1901b, 23 (syn. of *Enodiotrema megachondrum*) (in *Thalassochelys caouana* = *T. caretta*).
- capitellatum* Rud., 1819a, 83, 343 (to *Monost.* (*Monost.*)) (t. h. *Sparus salpa*; Naples).—Barbagallo & Drago, 1903, 411 (in *Box salpa*; Catania).—Brand., 1892, 509.—Braun, 1891d, 421; 1892a, 765, 766, 784, 786; 1893a, 915; 1893b, 178, 179.—Carus, 1884, v. 1, 112, 122.—Cobbold, 1860a, 42 (in *Box salpa*, *Scomber scombrus*).—Creutzburg, 1890a, 21.—Dies., 1850a, 326; 1858e, 327 (in *B. sal.*).—Duj., 1845a, 360–361.—Fil., 1855b, 25.—Florance, 1866a, 5.—Kroyer, 1838–40a, 595 (in *Scom. scom.*).—Leuck., 1863, 491, fig. 166; 1879, 39, fig. 16; 69; 1886d, 30, 69, fig. 16.—Looss, 1899b, 669; 1902m, 730 (as possible type of *Monost.*, if Rud., 1819, were taken instead of Linn., 1758).—Luehe, 1901, 59, 60.—Mont., 1892, 4–12; 1892, 16 (of Carus, 1884, 112, partim, Par., Setti, Stoss. = *M. stossichianum* Mont.); 1892, 685, 686, 687, 688, 689, 694, 695, 696, 697, 698, 699, 700, 702, 703, 704, 705, 716; 1893, 15, 24, 83, 84, 104, 115, 116.—Par., 1886, 5, 7; 1887, 489.—Setti, 1891, 4 (= *M. stossichianum* teste Mont.).—Stoss., 1883, 112, pl. 2, fig. 9 (= *M. stossichianum* teste Mont.); 1898, 64.—Wagener, 1857, 26, 27, 45, 101, pl. 19, fig. 5.—Will.-Suhm, 1873, 342.
- caryophyllinum* (Rud., 1802) Zed., 1803a, 189; to *Monost.* (*Hypost.*) by Rud., 1809a, 323.—Baillet, 1866b, 108.—Blainv., 1828a, [probably type of *Hypost.*].—Brand., 1892, 508.—Braun, 1893a, 915.—Bremer, 1824, 132, pl. 8, figs. 1–2.—Cobbold, 1858b, 156, pl. 31, figs. 2, 3 (in *Gasterosteus aculeatus*).—Crep., 1823a, 80; 1839, 285.—Dav., 1877a, lxxiii.—Dies., 1850a, 328 (in *Gast. acul.*, *Gyphæ*; *Anas boschas* dom., Berlin).—Duj., 1845a, 360.—Gurlt, 1838, 229.—Kroyer, 1838–40a, 187 (in *Gast. acul.*).—Lamarck, 1816b, 186.—Mont., 1892, 717 (*caryophyllum*).—Nord., 1840, 623.—Olfers, 1816, 48.—Rail., 1893a, 339.—Risso, 1826, 262.—Rud., 1809a, 325–326, pl. 9, fig. 5; 1819a, 82.—Sieb., 1839, 169.—Verrill, 1870, 179 (of Bremer).
- caryophyllum* Mont., 1892, 717 (for *caryophyllinum*).
- cereatum* Ben., 1858a, 1861a, 179 [possibly lapsus for — ? —].
- cochleariforme* Rud., 1809a, 326–327, 410 (*Festuc. cyprinacea* Schrank, 1790, renamed) (to *Hypost.*) (in *Cyprinus barbus*); 1819a, 82–83.—Brand., 1892, 507.—Braun, 1893a, 916.—Dies., 1850a, 329 (syns.: *Festuc. cyp.*, *Dist. punctatum* Zed.) (in *Barbus communis*).—Duj., 1845a, 362.—Kroyer, 1846–53a, 333 (in *Barbus fluviatilis* Ag.).—Lamarck, 1816b, 187.—Mont., 1892, 685, 696, 698, 704, 716, 717.—Nord., 1840, 624 (syn. *Festuc. cyp.*).—Olfers, 1816, 48.—Stoss., 1890, 132.
- conicum* Zed., 1803a, 188 (*Festucaria cervi* Zed., 1790 renamed).—Dies., 1836, 247; 1850a, 401 (to *Amphist.*).—Fischder., 1901, 368 (syn. of *Paramphist. cervi*, type); 1902a, 11 (syn. of *P. cervi*); 1903h, 540.—Nitzsch, 1819, 398 (to *Amphist.*).—Nord., 1840, 627 (to *Amphist.*).—Rud., 1809a, 349 to *Amphist.*, 350.—Stiles, 1898a, 64.—Ward, 1895, 256 (to *Amphist.*), 332 (in *Bos taurus*), 335 (in *Ovis aries*).
- constrictum* Dies., 1850a, 322 (t. h. *Abramis brama*; eye); 1855, 62, pl. 2, figs. 3–5; 1858e, 325.—R. Bl., 1888a, 542.—Brand., 1892, 511, to *Diplostomulum*.—Braun, 1893a, 871.—Kroyer, 1852–53a, 1223 (in *Abramis brama* L.).—Moniez, 1896, 154.—Mont., 1888a, 7; 1892, 716, 717.—Sramek, 1901, 108 (see *Dist. retroconstrictum*).

MONOSTOMA—Continued.

- cornu* (Zed., 1800) Rud., 1819a, 85, 90, 345–346 (in *Ardea cinerea*, A. *nycticorax*).—Brand., 1892, 507.—Braun, 1893a, 916.—Dies., 1850a, 327.—Duj., 1845a, 349–350.—Mont., 1892, 706.
- cotti* Linst., 1889a, 80, based on Zschokke, 1884, 204–205 (in *Cottus gobio*; Lake Leman), ? syn. *M. mareñulæ*.—Braun, 1893a, 871.—Mont., 1892, 685, 716, 717.
- crenulatum* Rud., 1809a, 328, to Monost. (Monost.) (t. h. *Motacilla phœnicurus*; Greifswald); 1819a, 84.—Brand., 1892, 510.—Braun, 1893a, 915.—Dies., 1850a, 327.—Duj., 1845a, 348.—Lamarck, 1816b, 187.—Mont., 1892, 713, 714 (in *Lusciola phœnicurus*).—Nord., 1840, 624 (in *Mot. phœn.*).—Olfers, 1816, 48.—Stoss., 1898, 23.
- crucibulum* Rud., 1819a, 83, 342–343 to (Monost.) (t. h. *Muraena conger*, *M. cassini* (*M. myroides*); Naples).—Dies., 1850a, 321–322; 1859c, 425, 437 (to *Gasterost.*).—Duj., 1845a, 363–364.—Kroyer, 1846–53a, 615 (in *Anguilla conger* L.).—Odhn., 1905, 305 (to *Prosorhynchus*).—Stoss., 1898, 60.—Tennent, 1906, 639, 640 (to *Gasterost.*).
- cucumerinum* (Rud., 1809) Braun, 1899f, 468.—Stoss., 1902, 9, 32 (to *Typhlocœlum*).
- cymbium* Dies., 1850a, 320 (t. h. *Himantopus wilsonii*; Caiçara, Brazil); 1855a, 63, pl. 2, figs. 1–2; 1858e, 324.—Brand., 1892, 509.—Braun, 1892a, 642, 700; 1893a, 873, 915; 1893b, 179; 1901b, 48.—Looss, 1902m, 701.—Mont., 1892, 27 (syn. of *M. flavum*); 1892e, 683–718, figs. 1, 2, 4, 6, 8, 9, 10, 11; 1892, 707 (syn. of *M. flavum* Mehlis); 1892, Oct. 7, 183; 1892f, 47 pp., 11 figs.; 1893, 19, 83, 84, 115, 116, 117.—Stoss., 1902, 4, 6, 7 (*cymbium*), 27, 28 (to *Hæmatotrephus*).
- cyprinæ* Leach in Johnston, 1865a, 35 (on *Cyprina islandica*; Plymouth), as syn. of *Malacobdella grossa*.
- cymbium* Stoss., 1902, 7, for *cymbium*.
- delicatum* Dies., 1850a, 325 (Dist. *testudinis* Rud., 1819a, 121, renamed) (t. h. *Emys europæa*, *Halichelys atra*; Mus. Vien.).—Brand., 1892, 510.—Braun, 1893a, 915; 1899, 628; 1899b, 715, 721, 722; 1901b, 54.—Mont., 1892, 685, 714.—Also reported for *Emys lutraria*.
- delphini* Dies., 1850a, 330 (in *Delphinus dalei*) based on Blainv., 1825a, 141 and 1825b, 212–214 (on *Delphinus* sp.; Havre).—Ben., 1870, 358.—Braun, 1893a, 870.—Cobbold, 1879b, 421.—Mont., 1892, 711.—See also *M. blainvillei*.
- dubium* Cobbold, 1858b, 156, pl. 31, figs. 4–5 (t. h. *Gasterosteus spinachia*); 1879b, 463.—Brand., 1892, 511 (to *Monostomulum*).—Braun, 1893a, 871.—Mont., 1892, 717.
- dujonii* Braun, 1893a, 917, for *dujonis*.
- dujonis* Leuck., (1874), 419 (in *Halicore dujong*), teste Mont., 1892, 712.
- echinatum* Linst., 1878, 223–224, fig. 6 (in *Pandion haliaëtus*); 1889.—Brand., 1892, 509.—Braun, 1892a, 570, 586; 1893a, 915.—Mont., 1892, 685, 686, 687, 694, 697, 698, 699, 702, 705, 713, 714.
- echinostomum* Dies., 1850a, 326 (t. h. *Cathartes aura*, *Sula fusca*; Brazil) (includes Dist. *planicollæ* Rud., 1819a, 686, from *Pelecanus sula*; Brazil); 1855, 63, pl. 2, figs. 14–16; 1858e, 327.—Brand., 1892, 506.—Braun, 1892a, 584; 1901, 567; 1902b, 28 (syn. of *Anoëtost.* (?) *planicollæ*).—Mont., 1888, 8, 14; 1892, 706, 710.
- elaphi* (Gmelin, 1790) Zed., 1800a, xvi, 150.—Fischder., 1902a, 11 (syn. of *Paramphist. cervi*); 1903h, 504, 506.—Rud., 1809a, 350 (= *Amphist. conicum*).—Stiles, 1898a, 64.
- ellicticum* Mont., 1892, 715 (for *ellipticum*).
- ellipticum* Rud., 1809a, 333 (Mon. *bombynae* Zed., 1800, renamed) to (Monost.); 1819a, 84–85 (in *Bufo igneus*, Berlin; B. *cinereus*), 344–345.—Baird, 1853a, 53 (= Dist. *variegatum* Crep.).—Blainv., 1828a, 582.—Brand., 1892, 507.—Braun, 1893a, 876, 881, 915.—Bremser, 1824c, pl. 8, figs. 12–14.—Cobbold, 1860a, 41.—Dies., 1850a, 322 (in *Bombinator igneus*, Berlin; *Phryne vulgaris*) (syn. *M. bombynae* Zed.), 355.—Duj., 1845a, 359.—Eichwald, 1829a, 249.—Looss, 1894a, 71, 72, 80 (syn. of Dist. *varieg.* Rud.); 1899b, 660; 1901, 192 (*M. bombynae*).—Mont., 1892, 715 (*ellicticum*).—Nord., 1840, 625.—Olfers, 1816, 48.—Par., 1894, 168.—Schlotthauber, 1860, 129.—Sieb., 1835, 56.—Stoss., 1889, 62 (= Dist. *varieg.*); 1898, 35; 1902, 5.—Reported for *Bufo igneus*, B. *vulgaris*, *Rana bombina*, R. *esculenta*.
- expansum* Crep., 1842, 327 (t. h. *Aquila haliaëtus*).—Brand., 1892, 508.—Braun, 1893a, 915.—Dies., 1850a, 321 (in *Falco haliaëtus*; *Gryphæ*).—Duj., 1845a, 345–346.—Jägers., 1901b, 979–983, 1 fig. (to *Tototrema*); 1902a, 356–357; 1903a, 1.—Mont., 1895, 685, 686, 694, 696, 697, 698, 699, 700, 703, 713, 714.

MONOSTOMA—Continued.

- jaba* Bremser in Schmalz, 1831, 11–16, pl. 6, figs. 1–9 (in *Parus major*, *Sylvia sibilatrix*, *Motacilla boarula*); 1839b, 1–8, pl. 1, figs. 1–2.—Baird, 1853, 45.—Brand., 1892, 509.—Braun, 1892a, 567, 642, 747, 751, 784; 1893a, 877, 879, 894, 915; 1893d, 468.—Cobbold, 1860a, 38, to *Wedlia*.—Crep., 1839b, 1–8, pl. 1, figs. 1–2; 1839a, 285.—Dav., 1877a, lxxiii.—Dies., 1850a, 320–321 (syns. *M. bijugum* Miescher, *Globularia Rolando*) (in *Fringilla spinus*, *F. canaria*, *F. domestica*, *Motacilla boarula*, *Parus major*, *Sturnus vulgaris*, *Sylvia sibilatrix*, *S. trochilus*).—Duj., 1845a, 346–348.—Leuck., 1863, 453.—Linst., 1904, 254 (*Monostromum*).—Looss, 1893b, 810.—Mont., 1888a, 9, 18, 93; 1892, 697, 699, 704, 713, 714.—Mueh., 1898, 31.—Nord., 1840, 625 (syn. *M. bijugum*).—Par., 1887, 327–329, pl. 6, fig. 36.—Rail., 1898, Oct., 628–629 (in *Garrulus glandarius*).—Sieb., 1839, 160, 161.—Tasch., 1879, 608 (syn. *M. bijugum* Miescher).—Reported also for *Cyanocitta cristata*, *Emberiza cirius*, *Ficedula sibilatrix*, *F. trochilus* L., *Saxicola oenanthe*, *Motacilla alba*, *Passer domesticus*, *Sylvia* sp.
- filarinum* (Ben., 1858) Dies., 1859c, 426–427, as sp. inq.—Mont., 1893, 137.—Reported for *Sciaena umbra*.
- filicolle* Rud., 1819a, 85–86, 347–348 (t. h. *Brama raji* (*Sparus raji*); Naples) to (Monost.).—Ariola, 1906, 184; 1906, v. 30, 185–186.—Ben., 1858a, 1861a, 104, 105 (to Dist.).—Braun, 1892a, 572.—Cobbold, 1860a, 31 (type of *Köllikeria*).—Dies., 1850a, 359 (syn. of *Dist. okenii*).—Duj., 1845a, 361.—Kroyer, 1838–40a, 219, 594 (in *Pagellus centrodontus* Cuv., *Brama raji* Bl.).—Mont., 1893, 150.—Stiles & Hass., 1898a, 91, 98.—Tasch., 1879, 608.
- filigerum* Rud.—Risso, 1826, 262 (de la castagnolle).
- filum* Duj., 1845a, 362 (t. h. *Scomber scombrus*).—Ben., 1870c, 140, 141, 142.—Braun, 1892a, 660, 784, 786.—Dies., 1850a, 327; 1858e, 328 (in *Exocoetus exiliensis*).—Kroyer, 1838–40a, 595 (in *Sc. sc.*).—Leuck., 1863a, 490.—Mont., 1888, 72; 1892, 716.—Mueller, 1894, 121–122 (in *Ex. evolans*, *E. exiliensis*).—Par., 1894, 168.—Par. & Perugia, 1893, 1, 2, 3, of Wagener (syn. of *Didymozoon exocæti*).—Wagener, 1854, 10; 1857, 25, 52.—Reported also for *Brama raji*.
- flavum* Mehlis, 1831, 172 (t. h. *Anas mollissima*, *A. fusca*, *A. marila*, *A. fuligula*).—Baillet, 1866b, 96, 107.—Ben., 1858a, 1861a, 171.—Brand., 1892, 507.—Braun, 1892a, 587, 673, 764, 768, 784, 785, 786, 788, 805; 1893a, 858, 866, 873, 876, 915; 1895b, 17; 1899, 467; 1902b, 20.—Cohn, 1904, 229 (syns.: *Typhlocœlum* Stoss., *Cyclocœlum* Brand.).—Crep., 1837, 314, 324.—Dies., 1850a, 324; 1858d, 245; 1858e, 325–326 (adult in *Anas mollissima*, *A. fusca*, *A. marila*, *A. fuliginosa*, *Mergus albellus*, *M. serrator*, young in *Fringilla dom.*, larva in *Planorbis cornutus*).—Duj., 1845a, 355.—Gamb., 1896a, 72.—Leuck., 1863a, 491, 515.—Levin., 1881a, 57.—Linst., 1873, 1 (young, *Glenocerc. flava*); 1903, 279.—Looss, 1899b, 660.—Magalhães, 1899, 259, 260.—Mont., 1888a, 73, 76; 1892, 17–28; 1892, 683, 685, 686, 687, 696, 697–698, 699, 700, 704, 706, 707–708, 709–710, 711, 713, figs. 3, 7 (syn. *M. cymbium* Dies.) (in *Anas fuliginosa*, *A. fusca*, *A. marila*, *A. mollissima*, *Himantopus wilsonii*, *Mergus albellus*, *M. serrator*).—Moul., 1856a, 23, 207, 208.—Mueh., 1898, 31.—Nord., 1832a, 85, 93; 1840, 617.—Par., 1896, 2.—Schneidemuehl, 1896, 303.—Sieb., 1835, 66, 82.—Ssinitzin, 1905, 158–159; 1906, 687.—Stoss., 1902, 2, 5, 6, 7, 9, 18 (of *Par.* syn. of *Cyclocœlum robustum* Stoss.), 28, 30, 31 (of Mehlis to *Typhlocœlum*), 33 (of Magalhães, syn. of *Typhlocœlum* sp.).—Also reported for *Fuligula marila*, *Grus cinerea*.
- foliaceum* Rud., 1819a, 83, 340–342 (t. h. *Accipenser sturio*; Arimini) to (Monost.).—Blainv., 1828a, 582.—Braun, 1889i, 440; 1891d, 421; 1894a, 1147.—Bremser, 1824a, 132; 1824c, pl. 8, figs. 3–7.—Dies., 1836, 240; 1850a, 319–320 (in *Accipenser sturio*, *A. glaber*, *A. stellatus*); 1858e, 324 (in *Accipenser sturio*, *A. nasus*); 1859c, 425 (syn. *Amphilina foliacea* Wagener).—Duj., 1845a, 364.—Grimm, 1871, 499–502.—Kroyer, 1852–53a, 778 (in *Acip. stu.*).—Macé, 1882, 64.—Mol., 1858, 128; 1861, 197.—Mont., 1892, 2.—Nord., 1840, 625.—Salensky, 1874, 16 Sept., 291–292, pls. 28–32.—Villot, 1876, 1345; 1878, 16.—Wedd., 1855, 380–382, 394, pl. 2a, fig. 15; 1855, 399–400, pl. 1b, fig. 6.—Also reported for *Acipenser guldenstädtii*.
- galcatum* Rud., 1819a, 86, 349–350 (t. h. *Centronotus glaucus*; Naples) to (Monost.).—Braun, 1893a, 915.—Dies., 1850a, 327.—Duj., 1845a, 362.—Mont., 1892, 685, 686, 697, 698, 699, 702, 703, 704, 716.—Stoss., 1887, 90; 1898, 62.—Reported also for *Lichia amia*, *L. glauca*.
- gemellatum* Mont., 1892, 716, for *gemellum*.

MONOSTOMA—Continued.

- gemellum* Steenstrup, 1860, 113 (in *Sphyræna baracuda*).
- geminum* Bremser, in Schmalz, 1831, 13 (for *M. faba* Bremser).—Baird, 1853a, 45 (= *M. faba*).
- gibbum* Mehlis in Crep., 1846, 137 (t. h. *Fulica atra*).—Also reported for *Gallinula chloropus*.
- gracile* Rud., 1809a, 326 (t. h. *Salmo eperlanus*) to (Hypost.); 1819a, 82.—Brand., 1892, 508.—Dies., 1850a, 328–329.—Duj., 1845a, 363.—Kroyer, 1846–53a, 20 (in *Osmerus eperlanus* L.).—Lamarck, 1816b, 186–187.—Mont., 1892, 717.—Nord., 1840a, 623–624.—Olfers, 1816, 48.—Stoss., 1902, 5.
- gurltii* Cobbold, 1860a, 42 (in *Lacerta agilis*) (includes: *M. sp. Gurlt*, *M. lacertæ* Dies., *Dithyridium lacertæ* Valenc., *D. lacertæ viridis* Rud., *D. lacertæ muralis* Rud., *Petrathyrus obesus* Crep., *Piestocystis dithyridium* Dies.).
- hepaticum suis* Willach, 1893, 40–42; 1893, 26 Sept., 438; 1893, Mar., 124; 1894 (IV, 2), 874.—Braun, 1894g, 128–129 (= *Cysticercus tenuicollis*); 1894h, 755.—Stiles, 1898a, 28, 96.
- himantopodis* Rud., 1819a, 87 (in *Charadrius himantopus*; Cat. Mus. Vien.).—Dies., 1850a, 323 (syn. of *M. mutabile* Zed.).—Mont., 1892, 707.—Stoss., 1902, 1.
- hippocrepis* Dies., 1850a, 324 (t. h. *Hydrochærus capybara*; Brazil); 1855, 63, pl. 2, figs. 6–9; 1858e, 326.—Brand., 1892, 508.—Braun, 1892a, 568, 584, 709; 1893a, 874, 915; 1901b, 344–346, pl. 19, fig. 10.—Looss, 1902m, 610.—Mont., 1888, 54; 1892, 685, 686, 694, 695, 696, 697, 698, 700, 703, 704, 711.—Also reported for *Cavia capybara*.
- histrix* Mol., 1858, 128 (t. h. *Pelophylax esculentus*; Patavii); 1861, 197–198, pl. 1, fig. 12.—Braun, 1892a, 583 (*hystrix*); 1893a, 881, 916.—Dies., 1858e, 328 (in *Pel. esc.*).—Mont., 1892, 685, 697, 698, 699, 700, 702, 705, 715, 716 (*hystrix*).—Par., 1894, 168.
- holostomoides* Mehlis in Crep., 1846, 138 (t. h. *Colymbus cristatus*).—Brand., 1892, 509.—Braun, 1893a, 915.—Cohn, 1904, 230.
- hyalinum* Schlotthauber, 1860, 129 (in *Machetes pugnax*).
- hystrix* Brand., 1892, 506 (in *Rana esculenta*), for *histrix*.
- idi* Rud., 1819a, 87 to (?Hypost.). (t. h. *Cyprinus idus*).—Dies., 1850a, 414 (syn. of *Aspidogaster limacoides* Dies.).—Mont., 1892, Oct. 7, 202 (syn. of *Asp. lim.*).
- ignotum* Nicoll, 1906, 514 (in *Hæmatopus ostralegus*), sp. inq.
- impudens* Crep., 1846, 149 (t. h. *Squalus griseus*).
- incommodum* Leidy, 1856, 43 (t. h. *Alligator mississippiensis*; Florida); 1891a 414, (to Dist.) 1904a, 85.—Brand., 1892, 510.—Braun, 1893, 872, 915.—Cobbold, 1860a, 42.—Dies., 1858e, 329 (in *All. miss.*).—Mont., 1892, 714, 715.—Pavesi, 1881, 294.—Will.-Suhm, 1870, 11.
- isabellinum* Ratzel, (1868), 153, t. h. *Gadus æglefinus*.—Linst., 1878a, 223 (= *Rhipidocotyle gracilescens* (Rud.)).—Stoss., 1898, 61.
- kuhni* Cobbold, 1860a, 39 (*M. leporis* Kuhn, renamed) (in *Lepus cuniculus*).—Rail., 1893a, 339 (= *M. leporis* Kuhn).—See *Cysticercus pisiformis*.
- lacertæ* Dies., 1850a, 331 (t. h. *Lacerta agilis*) (syn. *Dist. ammon*); for *M. sp. Gurlt*, 1838, 229; 1858e, 328 (syn. *Tetrathyrus obesus*; cf. *Piestocystis dithyridium* Dies., 1850a, 495).—Crep., 1851, 1, 192.
- lactum* Jægers., 1896a, 165, 167–177, pl. 9, figs. 1–9 (in *Cottus scorpius*); 1896b, 179–180; 1898, 15; 1900, 736.—Braun, 1899b, 724; 1901b, 47.—Looss, 1899b, 671.—Maclaren, 1904, 583.—Ward, 1901, 180.—Type of *Galactosomum* 1899.
- lanceolatum* Wedl, 1858, 251–252, pl. 1, figs. 15–17 (t. h. *Himantopus rubropterus*).—Brand., 1892, 508.—Braun, 1892a, 586, 673, 764, 766, 784, 786; 1893a, 876, 915.—Dies., 1858e, 325 (in *Him. melanopterus*) 707 (syn. of *M. mutabile* Zeder).—Linst., 1878a, 132.—Mont., 1892, 26; 1892, 691, 706.—Par., 1896, 2.—Stoss., 1902, 2, 4, 5, 23 (to *Hæmatotrephus*).
- lentis* Gescheidt, 1833, 421, 445 (in *Homo*).—Assenova, 1899, 29.—E. Bl., 1846, 342.—R. Bl., 1888a, 542, 543; 1895, 729.—de Bonis, 1882, 180.—Braun, 1883a, 59; 1893a, 870; 1895b, 155; 1903, 3 ed., 151.—Cobbold, 1876, 211.—Dav., 1877a, lxxiii, 820, 822.—Dechambre, 1875a, 196 (of Nord.).—Dies., 1850a, 329 (in *Homo*); 1858e, 328.—Dunglison, 1893a, 821, 1174; 1895, 21 ed., 821, 1174.—Eiss, 1838, 23.—Gamb., 1896, 63.—Guenther, 1858, 205.—Hoyle, 1890, 538.—Huber, 1896, 501.—Ijima, 1889b, 122.—Kholodk., 1898, 34; 1899a,

MONOSTOMA—Continued.

- 153.—Kuech., 1855, 180–182.—Kuech. & Zuern, 1882, 285.—Leuck., 1863, 526, 633–634.—Monicz., 1896, 86, 152, 153.—Mont., 1892, 713 (of Nord.).—Mosler & Peiper, 1894, 185.—Rayer, 1843, 114, 116, 149.—Stiles, 1898a, 48; 1902, 25, 27, 28; 1905, 54.—Swart, 1862, 34.—Vogt, 1878, 10; 1878, 13.—Wagner, 1876, 122; 1883, 122.—Ward, 1895, 328 (in Homo); 1903, 866 (syn. of Agamodist. ophthalmobium Dies.).—Weinland, 1859, 280.—Wood & Fitz, 1897, 335.
- leporis* Kuhn, 1829, 464, pl. 11, figs. 6–7 (t. h. *Lepus cuniculus*).—Baillet, 1866b, 107.—Brand., 1892, 510.—Cobbald, 1860a, 39 (renamed kuhni); 1879b, 318.—Dav., 1877a, lxxiii.—Dies., 1850a, 330.—Mont., 1892, 42; 1892, 712, 713.—Rail., 1890, 132–133; 1893a, 216, 339 (= *Cysticercus pisiformis*); 1893, 339.—Stiles, 1902s, 27; 1906, 42.
- liguloideum* Dies., 1850a, 320 (t. h. *Vastres cuvieri*; Borbæ, Brazil).—Brand., 1892, 506.—Braun, 1892a, 567, 586; 1893a, 916; 1894a, 1147.—Dies., 1850a, 320; 1855, 62, pl. 1, figs. 25–29; 1858e, 324.—Mont., 1892, 2 (to *Amphilina*); 1892, 716 (to *Amphilina*).
- limacoides* Dies., 1835a, 421 (= *Aspidogaster limacoides*).
- lineare* Rud., 1819a, 83–84, 343–344 (t. h. *Tringa vanellus*) to (Monost.).—Baillet, 1866b, 107.—Blainv., 1828a, 582.—Brand., 1892, 508.—Bremser, 1824, pl. 8, figs. 8–9.—Crep., 1839, 285.—Dies., 1850a, 411 (syn. of *Notocotyle triseriale* Dies.).—Duj., 1845a, 349.—Hass., 1896a, 3 (syn. of *Noto. verrucosum* Frœlich).—Rail., 1893, 340.—Nord., 1840, 625.—Sieb., 1835, 50.
- loliginis* (delle Chiaje, 1841) Par., 1894, 169 (in *Loligo* sp.; Naples).
- lucaneum* Brand., 1902, 511, for *lucanica*.
- lucania* Leidy, 1904a, 143, for *lucanica*.
- lucanica* Leidy, 1877, 200–201 (in *Planorbis parvus*; U. S. A.) to (Glenocerc.); 1904a, 143–144.—Brand., 1902, 511 (*lucaneum*).—Linst., 1889a, 122 (*lucanicum*).
- lucanicum* Linst., 1889a, 122 (see *lucanica*).—Mont., 1892, 717.
- macrochis* Brand., 1892, 508 (in marine turtles).—Braun, 1893a, 915; 1899b, 715, 722; 1901b, 35, 54, 58.—Looss, 1899b, 756.
- macrostomum* Rud., 1809a, 337–338 (t. h. *Larus cinerarius*; Greifswald), to (Monost.); 1819a, 86.—Brand., 1892, 510.—Braun, 1893a, 915.—Dies., 1850a, 330.—Duj., 1845a, 358.—Mont., 1892, 706, 709.—Olfers, 1816, 48.
- macrurum* Schlotthauber, 1860, 129 (in *Corvus glandarius*).
- marænulæ* Rud., 1809a, 339–340 (t. h. *Salmo marænula*; Europe) to (Hypost.); 1819a, 87.—Brand., 1892, 510 (to *Monostomulum*).—Braun, 1893a, 871.—Dies., 1850a, 329.—Mont., 1892, 717 (*marænulæ*).—Also reported for *Coregonus albula*.
- marænulæ* Mont., 1892, 717 (for *marænulæ*).
- marilæ* Rud., 1819a, 87 (in *Anas marila*).—Dies., 1850a, 411 (*marillæ*, syn. of *Notocotyle triseriale*).
- marillæ* Dies., 1850a, 411 for *marilæ*, 1819.
- micropterygis* (Richiardi, 1902) Ariola, 1902, 103 (syn. of *Didymost. bipartitum* Wedl).
- microstomum* Crep., 1829, 1, 49–50, pl. 1, figs. 10–11 (t. h. *Fulica atra*; Greifswald); 1837, 314.—Ben., 1858a, 1861a, 70 (syn. of *Monost. mutabile*).—Braun, 1892a, 658.—Dies., 1850a, 323 (syn. of *M. mutab.*).—Nord., 1832a, 85.—Rail., 1893a, 338 (= *M. mutab.*).—Sieb., 1835, 50.—Stoss., 1902, 2, 13 (syn. of *Cyclocœlum mutabile*).
- minutissimum* Stoss., 1896, 130 (in *Anas boschas*; Doberdò); 1898, 63.
- mola* Rud., 1819a, 87, 350–351 (t. h. *Orthagoriscus mola*; Naples).—Dies., 1850a, 359 (syn. of *Dist. okenii*).—Mont., 1893, 137.
- molle* Leidy, 1856, 43 (t. h. *Sternotherus odoratus*; U. S. A.); 1904a, 86.—Brand., 1892, 510.—Braun, 1893a, 876, 915; 1901b, 54.—Dies., 1858e, 328 (in *Ster. od.*).—Mont., 1892, 715; 1896, 165.—Stiles & Hass., 1894e, 414, to *Dist.* (*Polyorchis*); 1894h, 162; 1895a, 737.
- murænulæ* Cobbald, 1860a, 43, for *marænulæ* = *M. braunii* Cobbald.

MONOSTOMA—Continued.

- mutabile* Zed., 1800, xvi, 150, 154–155 (t. h. *Fulica chloropus*; Germany); 1803, 189, pl. 3, fig. 1.—Aitken, 1866, 838; 1872, 204.—Baillet, 1866b, 91, 107.—Ben., 1858a, 1861a, 66, 68, 69–77, 79, 99, 171, 172, 179, 193, 202, 203, 204, 206, 211, 213, 214, 215, 223 (syn. *M. microstomum*), 256, 336, pl. 12, figs. 1–20.—Biehringer, 1884, 7.—de Bonis, 1882, 102.—Brand., 1892, 507, 508.—Braun, 1890a, 510; 1892, 51–52; 1892a, 584, 587, 590, 627, 642, 648, 658, 661, 663, 673, 674, 678, 715, 727, 761, 768, 769, 776, 780, 781, 784, 785, 786, 787, 805, 813; 1893a, 818, 820, 876, 879, 880, 883, 915; 1893b, 176, 179, 187; 1898d, 468; 1894a, 1166; 1895b, 17; 1896a, 1255; 1899, 467; 1901e, 346.—Crep., 1837, 314, 323, 324, 325.—Darr, 1902, 675.—Desmonceaux, 1868, 21.—Dies., 1836, 248; 1850a, 323–324 (syns.: *M. vanelli* Rud., *M. himantopodis* Rud., *Dist. calidris* Rud., *M. microstomum* Crep.); 1855a, 382; 1858e, 325 (in *Anas anser*); 1859c, 425 (in *Totanus calidris*, *Rallus aquaticus*, *Gallinula chloropus*, *Anas nigra*; Belgium).—Duj., 1845a, 351–355.—Erc., 1881e, 57, 86; 1882a, 293, 322.—Eschricht, 1853a, 231; 1855, 2.—Fil., 1854a, 5, 15; 1855b, 13, 24; 1857c, 12.—Florence, 1866a, 3, 5, 6.—Fraip., 1880c, 417.—Fuhrmann, 1904, 59 to (*Cyclocœlum*); 1904, 61.—Hass., 1896b, 1 (in *Meleagris gallopavo*).—Hoyle, 1890, 535, 539 (type of *Monost.*).—Jackson, 1888, 647, 649.—Kath., 1894a, 130.—Knoch, 1862, 58, 64, 73.—Koelliker, 1849, 57.—Leidy, 1885, 10.—Leuck., 1842, 35–37, pl. 1, fig. 12a. b.; 1863a, 33, 487, 491, 496, 502, 503, fig. 1, 167; 1879, 40, 141, fig. 17; 1886d, 30, 109, fig. 17.—Levin., 1881a, 57.—Looss, 1894a, 204; 1896b, 150; 1899b, 660, 661; 1901, 192 (type of *Cyclocœlum*); 1902m, 701, 702, 719, 720, 730.—Luehe, 1901, 174.—Magalhães, 1899, 258, 259, 260.—Méglin, 1890c, 87, 88, 89 (*Monostoma*), fig. 1.—Mehlis, 1831, 171.—Mont., 1888, 37, 56, 57, 67, 73, 76; 1892, 26–27; 1892, 28; 1892, 684, 685, 686, 690, 691, 692, 696, 697, 698, 699, 700, 701, 704, 705, 706–707, 708, 709, 710, 713 (syn. *M. lanceolatum* Wedl, *M. micropunctatum* Linst.) (in *Falco hamatus*, *F. milvoides*; Brazil); 1893, 83, 84, 209.—Moul., 1856a, 12, 22, 23, 45, 46, 47, 50, 56, 70, 97, 98, 99, 100, 102, 107–108, 207, 208.—Mueh., 1898, 12, 31.—Nord., 1832a, 56, 85, 93; 1840, 616, 617.—Olfers, 1816, 48.—Pag., 1857, 7.—Par. & Perugia, 1893, 1.—Rail., 1893a, 338 (syns.: *M. microstomum* Crep., *M. attenuatum* Mol. not Rud.); 1898, Oct., 627–628 (in geese).—Rud., 1809a, 333–334 to (*Monost.*); 1819a, 85.—Schneidemuehl, 1896, 303.—Sieb., 1835, 49–83, pl. 1, figs. 1–9 (in *Anas anser* dom., *Fulica atra*, *Gallinula chloropus*, *Grus cinerea*, *Rallus aquaticus*); 1850, 671, 672; 1854, 21, 22, 23.—Spengel, 1892.—Steenstrup, 1842, 40, 49, 56.—Stein, 1882, 1.—Stoss., 1889, 184; 1901, 92 (4) (in *Himantopus candidus*; Roma); 1902, 1–40, pls. 1–9; 1902, v. 9 (13), 406–407; 1905 (vii), 62.—Thomson, 1855, 188.—Verrill, 1870, 179.—Vogt, 1878, fig. 30.—Wagener, 1857, 22, 24, 26, 45, 52, 67.—Zernecke, 1895, 61.—Ziegler, 1905, 36, 37 (in *Gallinula chloropus*).—Also reported for *Anser cinereus* dom., *Crax alector*, *Fuligula marila*.
- mutabile* Zed.—Stoss., 1902, 13, to *Cyclocœlum*.
- mutabile* of Ben., 1858a, 69, pl. 12; of Dies., 1859c, 425; of Par., 167; and of Stoss., 1891, v. 13, 111.—Stoss., 1902, 15 (syn. of *Cyclocœlum ovopunctatum*).
- mutabile* of Sieb., 1835, 49; of Dies., 1858e, 325; of Dav., 1877a, lxxiii; and of Mueh., 1898, 31.—Stoss., 1902, 20 (syn. of *Cyclocœlum arcuatum*).
- nematoides* Crep., 1846, 129 (in *Falco albicilla*).
- nephriticus* Mehliis in Crep., 1846, 138 (t. h. *Colymbus arcticus*).—Brand., 1892, 509.—Braun, 1893a, 877, 915; 1893d, 467.—Cohn, 1904, 230 (to *Eucotyle*), 237.
- nephrocephalum* Dies., 1858e, 327 (*M. renicapite* renamed) (in *Sphargis coriacea*; America).—Braun, 1899, 627; 1901b, 52.—Mont., 1892, 715.
- nigropunctatum* Linst., 1883, 310, pl. 9, fig. 52 (in a bird “*Akatza*,” Turkestan).—Brand., 1892, 507.—Braun, 1892a, 784, 786 (in birds; Turkestan); 1893a, 915.—Mont., 1892, 26; 1892, 698, 706, 707 (syn. of *M. mutabile*).—Stoss., 1902, 5, 6.
- noctulæ* Cobbold, 1860a, 39 (*M. vespertilionis* Rud., renamed) (in *Vespertilio noctula*).—Mont., 1892, 712.
- obscurum* Leidy, 1887, 24 (in *Megalops thrissoides*; Coll. Army Med. Mus., Wash.); 1904a, 197.—Brand., 1892, 510.—Braun, 1893a, 874, 915.—Mont., 1892, 716, 717.
- ocreatum* (Gæze, 1782) Zed., 1800a, xvi, 150, 152–154; 1803a, 189.—Bellingham, 1844a, 337.—Blainv., 1828a, 582.—Bremser, 1824c, pl. 8, figs. 10–11.—Cobbold, 1860a, 39 (includes *Dist. lorum* Duj., *Fasc. ocreata* Gæze not Rud., *Cucullanus ocreatus* Schrank, *C. talpæ* Mueller); 1879b, 296.—Crep., 1839a,

MONOSTOMA—Continued..

- 285.—Dies., 1850a, 326 (syns.: *Fasc. ocreata* Goeze, *Cucullanus talpæ* Mueller, *C. ocreatus* Schrank, *Dist. lorum* Duj.); 1858e, 328 (in *Talpa europæa*; Ireland).—Duj., 1845a, 344.—Kuech., 1855, 181.—Lamarck, 1816b, 187.—Looss, 1901, 192 (= *Dist. lorum* Meln.).—Mont., 1888a, 7.—Nord., 1840, 624 (syns.: *Fasc. ocreata* Goeze, *Cucullanus ocreatus* Gmelin).—Olfers, 1816, 48.—Rud., 1809a, 329–331 (to *Monost.*); 1819a, 84.—Schlotthaufer, 1860, 129.—Stoss., 1892, 17 (syn. of *Dist. lorum* Duj.), 18 (*acreatum*) (syn. *Dist. lorum* Duj.).—Walter, 1866, 65.
- octopodis* delle Chiaje, teste in Mont., 1892, 717, 718.—Par., 1894, 169 (in *Octopus vulgaris*; Naples).
- oculobium* Cohn, 1902d, 712 (in *Vanellus melanogast.*; Greifswald Coll.).—Engler, 1904, 186.—Fuhrmann, 1904, 59, 61.
- orbicolare* Sons., 1891, 262, for *orbiculare*.
- orbiculare* Rud., 1819a, 83, 342 (t. h. *Sparus salpa*; Naples) (to *Monost.*).—Barbagallo & Drago, 1903, 411 (in *Box salpa*, *Oblata melanura*; Catania).—Brand., 1892, 509.—Braun, 1892a, 567, 568, 603, 635, 640, 650, 651; 1893a, 915.—Dies., 1850a, 320.—Duj., 1845a, 360.—Lint., 1898, 541–542, pl. 54, figs. 2–5 (in *Lobotes surinamensis*; Woods Hole); 1901, 416, 457.—Luehe, 1901d, 49–60, figs. 1–5; 1901e, 235–236; 1901f, 421.—Mont., 1888a, 7, 16, 41, 42, 43; 1892, 685, 687, 689, 690, 694, 697, 698, 699, 700, 701, 703, 716.—Par., 1887, v. 30, 15; 1894, 592.—Sons., 1891, 262 (*orbiculare* in *Box salpa*).—Stoss., 1883, 111; 1898, 65 (in *B. salpa*; Trieste).
- ornatum* Leidy, 1856, 43 (t. h. *Rana pipiens*).—Brand., 1892, 510.—Braun, 1893a, 877, 915.—Dies., 1858e, 326 (in *R. pip.*; Philadelphia).—Mont., 1892, 685, 697, 698, 715.—Staff., 1902, 724.
- ovatum* Mol., 1859, 822–824, pl. 2, figs. 2–4 (in *Gallinula crex*; Padua).—Brand., 1892, 508.—Braun, 1893a, 916; 1893b, 185.—Looss, 1899b, 662, 663.—Mont., 1892, 38, 40–41 (syn. of *Notocotyle verrucosum*); 1892, 706, 709.—Odhn., 1905, 368.—Stoss., 1902, 5.—Also reported for *Crex pratensis*.
- pandum* Braun, 1901a, 48–50, fig. 17 (in *Thalassochelys caretta*; Naples).
- petasatum* Deslongchamps, 1824ee, 511 (t. h. *Hæmatopus ostralegus*; Caen).—Brand., 1892, 505, 509.—Braun, 1892a, 568; 1893a, 874, 915.—Dies., 1850a, 330.—Duj., 1845a, 350–351.—Looss, 1902m, 610.—Mont., 1888, 7; 1892, 706, 709.—Villot, 1878, 18–20, pl. 5, fig. 1 (in *Strepsilas interpres*).
- pileatum* (Rud., 1802) Zed., 1803, 188 (in *Sterna hirundo*).—Dies., 1850a, 314 (to *Holost.*).—Olfers, 1816, 48.—Rud., 1809a, 338–339; 1819a, 90 (to *Amphist.*).
- pingue* Mehlis in Crep., 1846, 138 (t. h. *Colymbus cristatus*).—Brand., 1892, 509.—Braun, 1893a, 877, 915; 1893d, 467.—Cohn, 1904, 230, 232, 233 (to *Renicola*), 235 (syn. of *Taphrogonymus holostomoides*).
- plicatum* Crep., 1829a, 878–880, pl. 52, figs. 9–11 (t. h. *Balæna rostrata*; Rügen).—Ben., 1870, 357.—Brand., 1892, 509.—Braun, 1892a, 605.—Cobbold, 1879b, 421.—Dies., 1850a, 324.—Duj., 1845a, 344.—Jægers., 1891b, 32 pp., figs. 1–16 (anatomy); 1892a, 572–573 (see *Ogmogaster plicatus*).—Mont., 1892, 696, 704, 713; 1893, 203.—Odhn., 1905, 366 (to *Ogmogaster*).—Also reported for *Balæna mysticetus*.
- præmorsum* Nord., 1832, 55–56, 96 (t. h. *Cyprinus brama*).—Brand., 1892, 511 (to *Monostomulum*).—Braun, 1893a, 871, 915.—Dies., 1850a, 322 (in *Abramis brama*; Berlin).—Duj., 1845a, 363.—Kroyer, 1846–53a, 388 (in *Abr. br. L.*).—Mont., 1892, 685, 696, 697, 698, 716.—Walter, 1866, 65.
- prismaticum* Zed., 1800a, xvi, 150, 151–152 (t. h. *Corvus frugilegus*; Europe).—Brand., 1892, 510.—Braun, 1893a, 876, 915.—Dies., 1850a, 328.—Duj., 1845a, 349.—Looss, 1901, 192, 193 (type of *Monost.* by elimination; see, however, mutable and p. 368); 1902m, 700, 701, 702, 703, 707, 717, 718, 719, 720, 721, 729, 730.—Mont., 1892, 685, 699, 713, 714.—Luehe, 1901, 174.—Olfers, 1816, 48.—Rud., 1809a, 334–335 (to *Monost.*); 1819a, 85.
- proteus* Brand., 1891, 19, 22, 23; 1892, 567, 570, 571, pl. 22, figs. 5, 6 (in *Chelonia viridis*); 1892, 508.—Bettend., 1897a, 11; 1897, 315.—Brand., 1891d, 19, 22, 23.—Braun, 1893a, 915 (in *Chelone midas*); 1893b, 176, 177, 185 (in *Chelonia viridis*); 1899b, 715, 722; 1901b, 38.—Darr, 1902, 673.—Looss, 1894a, 186, 204; 1899b, 661, 662, 668, 869, 756, 767–770, to *Baris* as type; 1902m, 619, 626, 632, 636, 647, 653, 669, 678, 685 (of Walter, 1893, 197, pl. 10, figs. 13, 18, 19, as syn. of *Octangium sagitta*), 694 (of Walter, 1903, 196, figs. 22–23 to *Deutero-baris*).—Luehe, 1901, 58.—Mont., 1893, 213, 214.—Ofenheim, 1900, 148, 167.—Shipley, 1900, 533, 539.—Walter, 1892, 248, 249, 250; 1893, 196, 197, pl. 10, figs. 13, 18, 19, 22–23.

MONOSTOMA—Continued.

- pseudamphistomum* Crep., 1846a, 146 (t. h. *Chelonia mydas*).
- pumilio* Looss, 1896b, 154–158, pl. 10, figs. 101–106 (in *Pelecanus onocrotalus*; Cairo); 1899b, 670 (type of *Haplorchis*), 753.
- renicape* Leidy, 1856b, 43 (t. h. *Sphargis coriacea*); 1904a, 86.—Brand., 1892b, 510 (in *Dermatochelys coriacea*).—Braun, 1893a, 915; 1899, 627–629; 1899b, 715, 721, 722; 1901b, 38, 52–53, fig. 25.—Dies., 1858e, 327 (renamed *nephrocephalum*) (in *Sphargis coriacea*; America).—Mont., 1892, 685, 711, 714, 715.
- reticulare* Ben., 1859, 84–85, pl. 2, figs. 7–10 (t. h. *Chelonia midas*); 1858a, 1861a, 193.—Brand., 1892, 508.—Braun, 1892a, 651; 1893a, 916; 1893b, 185 (in *Ch. viridis*); 1899b, 715, 721, 722, 725; 1901b, 38, 54.—Jackson, 1888, 647.—Looss, 1894a, 186, 202, 204; 1899b, 756, 763, 765, 766, 767, 769; 1902m, 632, 643, 661, 662, 666, 688 (of Walter, 1893, 193, pl. 10, figs. 5, 6, 8a, syn. of *Polyangium linguatula*), 690, 691 (to *Microscaphidium*), 720.—Mont., 1892, 714, 715.—Shipley, 1900, 533, 539.—Walter, 1892, 248, 249.
- rhombi lævis* Dies., 1858e, 328 (in *Rhombus lævis*; Trieste), based on Wedl, 1855, 380, 394, pl. 2, 14.—Braun, 1893a, 871.—Mont., 1892, 717 (*rombi-lævis*).
- rombi-lævis* Mont., 1892, 717 (for *rhombi-lævis*).
- rubrum* Kuhl & van Hasselt, 1822a, 113; 1824a, 311 (in *Chelonia midas*; Iles des Cocotiers).—Braun, 1899b, 721, 723, 724; 1901b, 38, 50–52, figs. 26, 28.—Crep., 1846, 146.—Dies., 1850a, 325 (syn. of *M. trigonocephalum*).—Looss, 1899b, 667, 756; 1902m, 555.—Shipley, 1900, 532.
- sacidiornicola* Stoss., 1902, 34 (for *sarcidiornicola*).
- sarcidiornicola* Mégnin, 1890c, 87–90, fig. 2 (in *Sarcidiornis melanota*; Madagascar); 1890, 685–687, fig. —Braun, 1899, 468.—Mont., 1892, 28–31; 1892, 685, 686, 687, 697, 704, 706, 708, 709, 710, 713 (in *Sar. mel.*).—Stoss., 1902, 9, 33, 34 (*sacidiornicola*) (to *Typhlocelum*).
- semifusum* Olss., 1876, 28 (in *Sula bassana*; Lund).—Brand., 1892, 505, 509.—Braun, 1893a, 916 (in *S. bas.*).—Mont., 1892, 706, 710.
- sepiolæ delle Chiaje*, teste Crep., 1846a, 158.—Mont., 1892, 717, 718.—Par., 1894, 169.
- settenii* Numan, (1840), 358 (eye of horse).—Anacker, 1890m, 506.—R. Bl., 1888a, 542.—R. Bl. & Rail., 1891a, 26–28 (œstrid larva).—Braun, 1889a, 337; 1891d, 424.—Dies., 1850a, 617 (to *Pentast.*).—Moniez, 1896, 154.—Mont., 1892, 713.—Rail., 1895, 772.—Sieb., 1842, 299.—Stiles, 1902s, 28 (= larval dip-teron).—Ward, 1895, 338 (in *Equus caballus*).
- spathulatum* Dies., 1859c, 426 (for *spatulatum*).—Mont., 1892, 685, 697, 698, 716.
- spatulatum* Leidy, 1859, 111 (in fish).—Dies., 1859c, 426 (*spathulatum*) (in American fish).—Mont., 1892, 685, 697, 698, 716.
- species Brand., 1891d, 19 (*Monostomum*).
- species Braun, 1891e, 8.—Mont., 1892, 713.
- species Braun, 1901b, 50 (in *Chelone mydas*).
- species Kroyer, 1846–53a, 462; 1852–53a, 1224 (in *Leuciscus idus* L.).
- species Lint., 1901, 416, 439; 1905, 335, 356, 360, 367, figs. 217, 226–229 (in *Fundulus majalis*, *Menidia menidia*, *Orthopristis chrysopterus*, *Trachinotus carolinus*).
- species Stoss., 1902, 34–35 (in *Grus cinerea*).
- species Stoss., 1902, 35 (in *Mergus albus*).
- species Stoss., 1902, 36 (in *Machetes pugnax*; Berlin).
- species Stoss., 1902, 36 (in *Fulica atra*; Seeburg).
- species Stoss., 1902, 36 (in *Grus cinerea*; Luckenwalde).
- species Piesbergen, 1886, 356.—Mont., 1892, 716 (in *Cobitis barbatula*).
- species Villot, —.—Mont., 1892, 706 (in *Strepsilas interpres*).—See Linst., 1878a, 133.
- spinosissimum* Mont., 1892, 689 (for *spinosissimum*).
- spinosissimum* Stoss., 1883, 112, pl. 2, fig. 8 (in *Box salpa*; Trieste); 1898, 64.—Barbagallo & Drago, 1903, 411 (in *Box salpa*; Catania).—Brand., 1892, 509.—Braun, 1891d, 421; 1892a, 583, 651, 700, 765; 1893a, 916.—Looss, 1899b, 669, 670.—Luehe, 1901, 58, 59, 60.—Mont., 1892, 689 (*spinosissimum*), 697, 699, 702, 705, 716.—Type of *Centroderma* 1901.

MONOSTOMA—Continued.

- spirale* Dies., 1850a, 325 (t. h. *Hypsilophus tuberculatus*, *Podocnemis tracaxa*, *Chelonisidius tuberculatus*; Brazil); 1855, 63, pl. 2, figs. 10–13; 1858e, 326 (in *Hyp. tub.*).—Brand., 1892, 507.—Braun, 1892a, 567, 569, 709; 1899, 631; 1901b, 54–55.—Cobbold, 1860a, 41.—Mont., 1888, 7, 8; 1892, 35; 1892, 685, 696, 697, 698, 714, 715.—Stoss., 1895, 232 (to Dist.).
- squamula* (Rud., 1819) Dies., 1850a, 321 (in *Mustela putorius*; Jan., Tolosæ).—Brand., 1892, 506.—Cobbold, 1860a, 38.—Stoss., 1892, 20 (to Dist.).
- stossichianum* Mont., 1892, 12, 19, figs. 5, 7, 11, 15, 18 (includes *M. capitellatum* of Stoss., 1883, 2, pl. 2, fig. 9; Carus, 1884, 122, pars; Parona, 1886, 5, 7, nota 2; 1887, 489; Setti, 1891, 4) (in *Box salpa*; Italy “del nostro golfo”); 1892, 685, 686, 687, 688, 689, 694, 695, 696, 697, 698, 699, 700, 702, 703, 705, 716; 1893, 15, 16, 17, 24, 35, 83, 84, 115, 116.—Brand., 1892, 507, 509.—Braun, 1893b, 178, 179.—Looss, 1899b, 669.—Luehe, 1901, 58, 59, 60.—Stoss., 1898, 63–64 (in *Box salpa*; Trieste).
- sulcatum* Rud., 1809a, 337 (t. h. *Rana pipa*, intestine) to (Monost.); 1819a, 86.—Brand., 1892, 510.—Braun, 1893a, 916 (in *Pipa americana*).—Dies., 1850a, 325–326.—Duj., 1845a, 359.—Mont., 1892, 715, 716.—Olfers, 1816, 48.
- tenuicolle* Rud., 1819a, 85, 346–347, 577, pl. 2, figs. 1–4 (t. h. *Lampris guttatus*; Groningæ) to (Monost.).—Ben., 1858a, 1861a, 111, 199, 200; 1870, 87.—Blainv., 1828, 582 (*tenuicollis*).—Dies., 1850a, 359 (syn. of Dist. affine Dies.) (in *Lam. gutt.*); 1859c, 430.—Duj., 1845a, 361–362.—Mont., 1888a, 9; 1893, 150.—Schmalz, 1831, 16, pl. 6, figs. 10–12 (in *Lam. gutt.*).
- testudinis* M. S. Vienna Coll. in Braun, 1899, 630 (= Dist. *scyphocephalum* Braun).
- tethyæ* delle Chiaje teste Mont., 1892, 717.
- thethydis* delle Chiaje, teste E. Bl., 1847a, 309.
- thetycola* (delle Chiaje), teste Pag., 1862, 298.
- todari* delle Chiaje see Mont., 1892, 717, 718.—Par., 1894, 168 (in *Ommastrephes todarus*; Naples).
- totari* delle Chiaje.—E. Bl., 1847a, 309, see *todari*.
- trigonocephalum* Rud., 1809a, 336–337 (t. h. *Testudo mydas*; Europe) to (Monost.), includes *Planaria mydæ* Braun MS.; 1819a, 86, 349.—Bellingham, 1844a, 337.—Ben., 1858a, 1861a, 193.—Brand., 1892, 508.—Braun, 1891d, 424 (in *Thalassochelys corticata*; 1892a, 568; 1893a, 916; 1899b, 715, 721, 722, 723, 725; 1899, 627, 628; 1901b, 38–45 (originals in stomach of *Chelone mydas*), 45 (pars of Rud. 1819a, Dies., 1850a, Shipley, 1900, syn. of Monost. album), 46, 48, 49, 50, 51 (pars of Dies., 1850a, Shipley, 1900, syn. of *M. rubrum*), 52, fig. 29; 1901e, 346.—Dies., 1850a, 325 (syns. *Planaria midæ* Braun, *M. rubrum* et album Kuhl & Hasselt); 1858e, 327 (in *Chelone* (*Eretmochelys*) *imbricata*).—Duj., 1845a, 358–359.—Looss, 1894a, 204; 1899b, 666, 756 type of *Pronocephalus* [see *obliquus*]; 1901, 566, 567, 568; 1902m, 413, 527 (of Braun, 1901, 38, syn. of *Pronocephalus obliquus*), 529, 531, 548 (to *Pleurogonius*), 549 (original species contained 2 forms) (of Shipley, 1900, 532, pl. 54, figs. 1–7, syn. of *Cricocephalus delitescens*), 550, 551, 552, 556, 557, 558 (of Ben., 1859, 81, pl. 2, fig. 5, and Walter, 1893, 191, fig. 1, pl. 10, syn. of *Pleurogonius longiusculus* Looss), 561, 562, 563, 564, 580, 582 (= *Pleurog. long.* Looss), 584, 591, 595, 596, 713, 714, 716.—Mont., 1892, 685, 686, 687, 689, 694, 695, 696, 697, 698, 702, 703, 709, 711, 714, 715, fig. 5; 1893, 213.—Moul., 1856a, 23.—Olfers, 1816, 48.—Shipley, 1900, 532–540, fig. A. B., pl. 54, figs. 1–7.—Stoss., 1891, 111.—Walter, 1892, 248; 1893, 30 May, in 189–235, pls. 10–12.—Reported also for *Halichelys atra*.
- tringæ* Brand., 1892b, 507 to *Cyclocælum*, 508.—Braun, 1893a, 876, 916; 1899, 467.—Looss, 1899b, 660.—Stoss., 1902, 26, fig. 26 (to *Hæmatotrephus*) (in *Tringa variabilis*; Tor, Peninsula of Sinai).
- triseriale* (Dies., 1839) Dav., 1860, xlviii; 1877a, lxxiii.—Baillet, 1866b, 107 (syn. of *M. verrucosum*).—Hoyle, 1890, 539.—Verrill, 1870, 179.
- vanelli* Rud., 1819a, 87, 350 (t. h. *Tringa vanellus*; Mus. Vien.).—Dies., 1850a, 323 (syn. of *M. mutabile* Zed.).—Sieb., 1835, 507 (in *Vanellus cristatus*).
- variabile* (Nitzsch, 1857) Dav., 1860, xlviii; 1877, lxxiii.—Verrill, 1870, 179.
- ventricolum* Rud., 1809a, 334, misprint for *ventricosum*.
- ventricosum* (Rud., 1802) Rud., 1809a (*ventricolum*, p. 334), 335–336, 339; to (Monost.); 1819a, 86 (in *Motacilla lusciniæ*; *Gryphiæ*).—Brand., 1892, 509.—Braun, 1893a, 876, 916.—Dies., 1850a, 328 (syn. *Festucaria vent.*).—Duj., 1845a, 348–349.—Mont., 1892, 713, 714.—Olfers, 1816, 48.

MONOSTOMA—Continued.

verrucosum (Frölich, 1789) Zed., 1800a, xvi, 150, 155–159.—Anacker, 1887c, 513.—Baillet, 1866b, 107 (syn. *M. triseriale*).—Baird, 1853a, 45.—Bellingham, 1844, 336.—Ben., 1858a, 1861a, 72, 77–81, 179, 189, 190, 193, 197 (syns. *Fasc. ver.*, *F. anseris*, *Festucaria pedata*, *Notocotyle triseriale*, *Notocotylus triserialis*) (in *Anas tadorna*).—Ben., 1859, 77–80.—E. Bl., 1847, 304–308, pl. 13, fig. 2.—Brand., 1892, 508.—Braun, 1891d, 421; 1892a, 709, 762, 764; 1893a, 874, 891; 1893b, 177, 185; 1893d, 468; 1901b, 39.—Cobbold, 1872b, 90; 1877, 238; 1879b, 41, 440.—Crep., 1839, 285; 1846, 141.—Dies., 1839, 234; 1850a, 411 (syn. of *Notocotyle triseriale* Dies.); 1858e, 369 (syn. of *Notocotyle triserialis* Dies.) (in *Anas anser dom. et ferus*, *Hæmatopus ostralegus*, *Fulica atra*); 1859c, 437 (syn. of *Notocotyle triserialis*) (in *Anas tadorna*, *Planorbis*, *Lymnæus*; *Belgia*).—Duj., 1845a, 355–358, pl. 8, fig. B.—Hass., 1896a, 3 (to *Notocotyle*).—Hoyle, 1890, 539 (= *Notocotyle triseriale*).—Jackson, 1888, 642.—Lamarck, 1816b, 187.—Levinson, 1881a, 78 (in *Somateria mollissima*).—Looss, 1896b, 146–153, 192–197, 228, pl. 10, figs. 94–100, pl. 14, figs. 146–151 (in *Canard dom.*; *Alexandria*) (syns.: *Notocotyle triseriale*, *N. verrucosum*); 1899b, 661, 662, 663, 664; 1901, 192 (taken by Dies. as representative of *Notocotyle*).—Mol., 1859, 823.—Mont., 1888, 67; 1892, 26, 27, 40 (to *Notocotyle*); 1892, 685.—Mueh., 1898, 31, 32.—Nord., 1840, 602 (syn. of *Notocotylus triserialis*), 624 (syn. *Fasc. verr. Fr.*).—Odhn., 1905, 366, 367, 368, 369, 370 (to *Catantropis*) (of Looss, 1896, syn. of *Notocotyle ægyptiaca* Odhn.).—Olfers, 1816, 48.—Rail., 1893a, 340 (to *Notocotyle*).—Risso, 1826, 262.—Rud., 1809a, 331–333 (to *Monost.*) (includes *Fasc. anseris* Gmelin, *Festucaria pedata* Schrank); 1819a, 84, 344.—Schneidemuehl, 1896, 303.—Sieb., 1835, 56, 60 (in *Fulica atra*, *Gallinula porzana*, *Phasianus gallus*, *Rallus aquaticus*).—Sons., 1897, 252.—Verrill, 1870, 179.—Wedl, 1857, 248–250, pl. 2, figs. 9–14.—Wolffhüegel, 1900, 9, 55, 56, 57.—Will.-Suhm, 1870, 7.—Reported also for *Anas anser*, *A. bernicla*, *A. boschas fera*, *A. marila*, *A. mollissima*, *A. querquedula*, *A. segetum*, *Cygnus olor*, *Harelda glacialis*, *Machetes pugnax*, *Mergus merganser*, *Recurvirostra avocetta*, *Rhynchaspis clypeata*.

vespertilionis Rud., 1819a, 87 (t. h. *Vespertilio noctula*; Cat. Ent. Vien.).—Brand., 1892, 510.—Braun, 1893a, 916.—Dies., 1850a, 329–330 (in *Vesp. noc.*).—Kolenati, 1857, 11.—Mont., 1892, 712.—Also reported for *Vespertilio lasiopterus*, *Vesperugo noctula*.

vinal-edwardsii Lint., 1901, 416, 470, figs. 373, 374, 375, 376; 1905, 329, 335, 379, 410, figs. 220–221 (in *Opsanus tau*, *Orthopristis chrysopterus*; Beaufort, North Carolina).

viviparæ Linst., 1877, 185, pl. 13, fig. 16 (in *Paludina vivipara*).—Mont., 1892, 717
wedlii Cobbold, 1860a, 43 (= *M. rhombi lævis* Wedl, renamed) (in *Rhombus lævis*); 1879b, 463.

zederi Rud., 1805a, 44 [evidently not as specific combination, but as *Monostoma Zed.*].

(MONOSTOMA) Rud., 1809a, typical subg. of *Monost.* in Rud., 1809a, 328–339 “ore antico, sive terminali.” As Rud. excludes *Festucaria anatis* from *M.* (*Monost.*), his typical subg. is to be construed as distinct from *Monost. Zed.* = *Festucaria* renamed, by which it is, however, antedated.

attenuatum Rud., 1809a, 328–329 (t. h. *Scolopax gallinago*, *cæca*; Griefswald). See also under *Monost.*

capitellatum Rud., 1819a, 83, 343 (t. h. *Sparus salpa*; Naples). See also under *Monost.*

cornu (Zed., 1800) Rud., 1819a, 85. See also under *Monost.*

crenulatum Rud., 1809a, 328 (t. h. *Motacilla phœnicurus*, intest.; Griefswald). See also under *Monost.*

crucibulum Rud., 1819a, 83, 342–343 (t. h. *Muræna conger*, *M. cassini* (*M. myroides*); Naples) (to *Gasterost.* by Gervais & Ben., 1859) (to *Dist.* (*Crossodera*) by Duj. 1845a, 435). See also under *Monost.*

ellipticum Rud., 1809a, 333 (*M. bombynæ* Zed., 1800, renamed). See also under *Monost.*

filiolle Rud., 1819a, 85–86, 347–348 (t. h. *Brama raji*; Naples). See also under *Monost.*

foliaceum Rud., 1819a, 83, 340–342 (t. h. *Accipenser sturio*; Arimini). See also under *Monost.*

(MONOSTOMA)—Continued.

galeatum Rud., 1819a, 86, 349–350 (t. h. *Centronotus glaucus*; Naples) (to *Gasterost.*, by Stoss., 1898, 62). See also under *Monost.*

lineare Rud., 1819a, 83–84, 343–344 (t. h. *Tringa vanellus*). See also under *Monost.*

macrostomum Rud., 1809a, 337–338 (t. h. *Larus cinerarius*, intest.). See also under *Monost.*

mutabile (Zed., 1800) Rud., 1809a, 333–334. See also under *Monost.*

ocreatum (Gœze, 1782) Rud., 1809a, 329–331. See also under *Monost.*

orbiculare Rud., 1819a, 83, 342 (t. h. *Sparus salpa*; Naples). See also under *Monost.*

pileatum (Rud., 1802) Rud., 1809a, 338–339 (to *Amphist.*, by Rud., 1819a, 90). See also under *Monost.*

prismaticum (Zed., 1800) Rud., 1809a, 334–335. See also under *Monost.*

sulcatum Rud., 1809a, 337 (t. h. *Rana pipa*). See also under *Monost.*

tenuicolle Rud., 1819a, 85, 346–347, 577, pl. 2, figs. 1–4 (t. h. *Lampris guttatus*). See also under *Monost.*

trigonocephalum Rud., 1809a, 336–337 (t. h. *Testudo mydas*, stomach; Europe). See also under *Monost.*

ventricosa (Rud., 1802) Rud., 1809a, 335–336. See also under *Monost.*

verrucosum (Frœlich, 1789) Rud., 1809a, 331–333. See also under *Monost.*

MONOSTOMATA Zed., 1800a, 150, plural for *Monostoma*.—Dowker, 1882a, 11.

MONOSTOMATIDÆ Gamb., 1896a, 73.

MONOSTOMEA Mont.—Olss., 1893.

MONOSTOMEÆ Mont., 1888, 7, 8, 9, 11, 12, 14, 15, 16, 18, 34, 36, 37, 41, 47, 48, 51, 52, 53, 54, 56, 90, 92, 102, 105, 108; 1892, 689.—Brand., 1888a, 49.—Braun, 1893a, 886, 887.—Par. & Perugia, 1890, 9.

MONOSTOMEN, German for *Monostomata*.—Stiles, 1902, 25, 26.

MONOSTOMES Dechambre, 1875a, 196, French for plural of *Monostoma*.

MONOSTOMEUS Rafinesque, 1815, 151 (new name for *Festucaria* Schrank, hence type *F. anatis*; apparently intended for *Monostoma* as it is attributed to Zed.

[*MONOSTOMIA* Rafinesque, 1815, 150, order of *Epistomia*.]

MONOSTOMIDA Kolenati, 1857, 11.

MONOSTOMIDÆ Cobbold, 1877f, 326; 1879b, 4.—R. Bl., 1895, 729.—Brand., 1890a, 576; 1892, 505.—Braun, 1883a, 58; 1893a, 887, 890, 895, 900, 914; 1895b, 137.—Hoyle, 1890, 539 (includes *Monostomum*, *Monocotyle*).—Jackson, 1888, 642, 654 (*Monostomum*).—Kholodk., 1898, 25, 33.—Looss, 1899b, 541, 543, 658, 659, 752; 1901b, 192, 193; 1902m, 524, 700 (validity of fam. name), 701, 702, 707, 731, 838.—Luehe, 1901, 174; 1901, 488.—Mont., 1888, 7, 10, 18, 21, 52, 60, 66, 67, 93, 105; 1892, Oct. 7, 214 (fam. of suborder *Malacocotylea*); 1892, 713.—Mueh., 1898, 31.—Pratt, 1902, 890, 909 (includes *Microscaphidiinæ*, *Pronocephalinæ*, *Haplorchidinæ*).—Schneidemuehl, 1896, 295, 296, 303.—Stoss., 1898, 63; 1902, 11.

MONOSTOMIDEA Ben.—Carus, 1863, 479.

MONOSTOMIDEN, German name.—Brand., 1892b, 7 Oct., 504–511.

MONOSTOMIDÉS R. Bl., 1888a, 541, 542, French for *Monostomidæ*.

MONOSTOMULUM Brand., 1892b, 510 [collective group for immature forms; requires no type].—Stiles, 1902s, 25, 28.

asperum (Vaillant, 1863) Brand., 1892b, 510 [cf. *asperum* 1857], (in *Siren lacertina*, sub cute in caps.).

delphini (Blainv., 1825) Brand., 1892b, 510 (in *Delphinus dalei*, in adipe folliculo inclusum).

dubium (Cobbold, 1858) Brand., 1892b, 511 (in *Gasterosteus spinachia*, ovarial-peritoneum in caps.).

lentis (Gescheidt, 1833) Brand., 1892b, 510.—Stiles, 1902s, 24–35, pl. 3, figs. 2–5 (in eye of man); 1903u, 223.

lucaneum Brand., 1892b, 511. See also (Glenocerc.) *lucanicum*.

marænulæ (Rud., 1809) Brand., 1892b, 510 (in *Coregonus marænula*, ad ventric. in caps.).

præmorsum (Nord., 1832) Brand., 1892b, 511 (in *Abramis brama*, in regione branchiarum).

MONOSTOMULUM—Continued.

rhombi lævis (Wedl, 1855) Brand., 1892b, 511.

settenii (Naumann, 1840) Brand., 1892b, 511.

viviparæ (Linst., 1877) Brand., 1892b, 511 (in *Paludina vivipara*).

MONOSTOMUM Crep., 1829, v. 1, 49, for *Monostoma* Zed., 1800.

MONOSTROMUM Linst., 1904p, 254, misprint for *Monostomum*.

MONOSTUMUM Mont., 1888, 69, misprint for *Monostomum*.

MUSALIA Shipley & Hornell, 1904, 93–95 (m. *herdmani*), pl. 3, fig. 51, pl. 4, figs. 58, 59, 65.

herdmani Shipley & Hornell, 1904, 78, 90, 93–95, pl. 3, fig. 51, pl. 4, figs. 58, 59, 65 (in *Margaritifera vulgaris*; Ceylon).

MUTTUA Shipley & Hornell, 1904, 90–93 (m. *margaritiferae*).

margaritiferae Shipley & Hornell, 1904, 78, 90–93, pl. 3, figs. 53–57 (in *Margaritifera vulgaris*; Ceylon).

NEMATHOBOTHRIUM Mont., 1892, Oct. 7, 214 (g. of *Didymozoonidae*) (for *Nematobothrium*).

NEMATOBOTHRIUM Ben., 1858a, 1861a, 11, 107–111, 200, 344, 345 (m. *filarina*; also by virtual tautonymy).—Braun, 1892a, 567, 569, 574, 577, 665, 696, 698, 699, 700, 707, 711, 727; 1893a, 878, 879, 886, 887, 890, 895, 914, 918; 1895b, 126, 136.—Gamb., 1896, 4, 73.—Hoyle, 1890, 539.—Jackson, 1888, 654.—Maclaren, 1904, 612, 613.—Moniez, 1891, 184–187.—Mont., 1888, 7, 18, 34, 52, 84, 93, 106; 1892, 6; 1892, Oct. 7, 214 (g. of *Didymozoonidae*) (*Nemathobothrium*); 1893, 137.—Pratt, 1902, 890, 909.—Schneidemuehl, 1896, 295.—Tasch., 1879, 607, 614; 1879, 72.

benedeni (Mont., 1893) Maclaren, 1904b, 613, to (*Didymozoon*).

filarina Ben., 1858a, 1861a, 108–109, pl. 13, figs. 1–12 (t. h. *Sciæna aquila*) (*filarium* in descr. of plates); 1870c, 136–143, pl. 8, figs. 1–9 (embryonic form of); 1870, 32.—Braun, 1892a, 586, 784; 1893a, 914.—Cobbald, 1879b, 462.—Dies., 1859c, 426 (to *Monost.*)—Gamb., 1896a, 55, fig. 22A.—Jackson, 1888, 654.—Maclaren, 1904b, 602, 603, 606, 612, 613.—Mont., 1888, 9; 1893, 137.

filarium Ben., 1858, 1861a, descr. of plates, see *filarina*.

guernei Moniez, 1891, 184–187 (in *Thynnus alalonga*; Europe).—Braun, 1891d, 423; 1893a, 914.—Maclaren, 1904b, 603, 613.

mola Maclaren, 1904b, 573, 602–613, pl. 21, figs. 17, 19, 21, pl. 22, figs. 23–33 (in *Orthogoriscus mola*) (*Nemathobothrium*); 1904, June 9, 443–444; 1905, Jan. 31, 20–29; 1905, June, 317; 1905, Dec., 703.—Ziegler, 1905, 37.

taxinoides (Mont., 1888) Maclaren, 1904b, 613, to (*Didymozoon*).

NEOPHASIS Staff., 1904, May 3, 485–486 (m. *pusilla*, *νέος*=new, *φάσις*=appearance).

pusilla Staff., 1904, 485–486 (in *Anarrhichas lupus*; Canada).

(NEPHROCEPHALA) Dies., 1858d, 260–264, subg. of *Cerc.* (*Hormocerc.*), renamed, hence type probably *echinatoides*. [See, however, *infra*, p. 385.]

echinata (Sieb., 1837) Dies., 1858d, 260–262 (syn. *Cerc.* (*Hormocerc.*) *echinata* Sieb.) (in *Paludina vivipara*, *Planorbis corneus*, *Lymnæus stagnalis*), larva of *Dist. echinatum* Zed.); 1858e, 344 (to *Dist.*).

echinatoides (Fil., 1854) Dies., 1858d, 262–263 (syns. *Cerc.* (*Hormocerc.*) *echinatoides* Fil., *Cerc. echinifera* La Valette, *Dist. echiniferum* Pag.) (in *Paludina achatina*, *P. vivipara*); 1858e, 346 (syn. of *Dist. echiniferum* La Valette).

megacotyla Dies., 1858d, 263 (syn. *Dist. echinatoides* Pag. nec Fil.) (in *Anodonta cygnea*; Heidelberg).

spinifera (La Valette, 1855) Dies., 1858d, 263–264 (in *Planorbis corneus*; Berlin).

NEPHROCEPHALÆ Dies., 1858d, 260.

NEPHROCEPHALUS Odhn., 1902, 27–29 (m. *sessilis*), not *Nephrocephala*,^a 1858; 1902, 42.—Pratt, 1902, 889, 907.

sessilis Odhn., 1902, 27–29 (in *Nilkrokodil*).

NEURONALIA Goodsir, (1844) (m. *monroi*).—Braun, 1889a, 341 (*Gasterost.*); 1893a, 844.

lampetræ Gulliver [1870, 849–850], 1872, 103, 425 (in *Planer's lamprey*; Stour River, Canterbury.—Brown, 1899a, 490 (in *lamprey*).

^a In our opinion (*Nephrocephala*, 1858) does not preoccupy *Nephrocephalus*, 1902.

NEURONAIA—Continued.

monroi Goodsir, (1844) (in *Gadus morrhua*).—Brown, 1899a, 490 (*munroi*).—Gulliver, 1872, 103, 425 (*monroii*).

monroii Goodsir teste Gulliver, 1872, 103, 425.

munroi Brown, 1899a, 490, for *monroi*.

NEURONAINA Brown, 1899a, 490 (see *Neuronaia*).

NITSCHIA Haswell, 1892a, 458 (for *Nitzschia*).

NITZSCHIA Ben., 1858a, 1861a, 11, 38, for *Nitzschia*.

hippoglossii Ben., 1858a, 1861a, 21.

NITZSCHIA Baer, 1826a, 125 (m. *elegans* for *Hirudo sturionis* Abildg, renamed *elegans*) [not *Nitzschia* Denny, 1842, insect]; 1827b, 675–676, pl. 32, figs. 1–6.—Ben., 1858a, 1861a, 11, 38 (*Nitzschia*).—Ben. & Hesse, 1864, 64, 65, 66, 67–68.—Blainv., 1828a, 567–568.—R. Bl., 1888, 130.—R. Brand., 1891d, 9.—Braun, 1890a, 411, 412, 414, 423, 425, 435, 436, 440, 450, 451, 466, 474, 484, 485, 511, 515, 516, 517, 519, 523, 526, 527; 1890e, 597; 1891d, 422; 1893a, 889.—Burm., 1837a, 530; 1856a, 251.—Dies., 1850a, 290, 425–426 (syns. *Hirudo* Abildg., *Trist. Nitzsch*); 1858e, 313, 363 (mentions only *elegans*).—Gamb., 1896, 73.—Goldb., 1855, 19.—Haswell, 1892a, 458 (*Nitschia*).—Johnston, 1865, 30; 1865, 33.—Massa, 1906, 43, 48.—Mont., 1888, 10, 13, 83, 86, 87, 97; 1891, 100, 105, 107, 126; 1892, Oct. 7, 213 (g. of *Tristominae*); 1893, 8, 210; 1899, 98, 99; 1903, 335 (subf. *Ancyrocotylinæ*; f. *Tristomidæ*); 1904, 117, 122.—Nord., 1832a, 60.—Pratt, 1900, 646, 648, 658.—Tasch., 1878, 564, 566 (syn. of *Trist.*); 1879, 233.

[*dubius* see Kellogg, 1876c, 544, arthropod.]

elegans Baer, 1826a, 125–126 (*Hirudo sturionis* Abildg., renamed); on gills of Stör; 1827b, 660–678, pl. 32, figs. 1–6 (includes *Trist. elongata*, 1826).—Abildg. (1797), 135, pl. 3, figs. 3–5; 1794b, 55, pl. 6, fig. 1 a. b. c.—Ben. & Hesse, 1864, 67–68 (syns. *Hirudo sturionis*; *Phylline*, *Trist. elongatum*, *T. sturionis*).—Blainv., 1828a, 568.—E. Bl., 1847, 323.—Braun, 1889h, 433–434 (syn. of *Trist. elongatum* *Nitzsch*); 1889k, 612.—Crep., 1846, 149.—Cuv., —.—Dies., 1850a, 426 (syns. *Hirudo sturionis* Abildg., *Trist. elongatum* *Nitzsch*, *Capsala elongata* Nord., *Trist. sturionis* Cuv. (in *Accipenser sturio*, A. guldenstädtii, A. acutirostris; *Scotia*); 1858e, 363.—Duj., 1845a, 323 (syn. of *Trist. elongatum*).—Johnston, 1865, 33–34, 299.—Leidy, 1887, 24.—Lint., 1903, 280.—Lint., 1898c, 508; 1901, 408, 414, 435.—Mont., 1904, 117; 1905, 117.—Moquin-Tandon, 1846a, 394.—Mueh., 1898, 11, 17.—[*Nitzsch*, 1826, 150–151.].—Nord., 1832a, 66; 1840, 602 (syn. of *Capsala elongata*).—Oken, —, 371.—Tasch., 1878, 563, 564, 565, 568 (syn. of *Trist. elongatum* *Nitzsch*); 1879, 56.

elongata (*Nitzsch*, 1826) Johnston, 1865, 34.—Braun, 1890a, 411, 419, 422, 424, 427, 428, 430 (*elongatum*), 431, 434, 437, 440, 445, 449, 450, 453, 456, 464, 472, 479, 489, 494, 497, 512, 527 (in *Accipenser sturio*), 547, 550; 1890e, 597, to (*Trist.*); 1892a, 667.—Gamb., 1896a, 56.—Kath., 1894a, 154.—Lint., 1901, 408, 414, 435 (in *Accipenser sturio*; Woods Hole, Mass.).—Mont., 1891, 106, pl. 6, fig. 32.—Pratt, 1900, 655, fig. 4; 657, 659.

hippoglossi (Mueller, 1776) Tasch., 1878, 568 (to *Trist.*) (for *hippoglossii*).

hippoglossii Ben., 1858a, 1861a, 21 (to *Epibdella*).—Tasch., 1878, 568 (*hippoglossi*) (to *Trist.*).

[*linearis*, a diatom.]

[*palea*, a diatom.]

papillosa Lint., 1898c, 508–509, pl. 40, figs. 1–6 (in *Gadus callarias*) [type U. S. N. M. 4874]; 1901, 414, 476 (in *Gadus callarias*; Woods Hole, Mass.).—Mont., 1904, 117 (to *Lintonia*); 1905, 70; 1905, 117 (to *Lintonia* as type).—Pratt, 1900, 659.

[*pulicaria*, a louse on the swift, *Chaetura pelagica*.]

[*sigmoidea*, a diatom.]

sturionis (Abildg., 1794) Kroyer, 1852–53a, 777 (in *Accipenser sturio* L.).

[*subtilis*, a diatom.]

NOCOTYLUS Nord., 1840, 602 (for *Notocotylus*).

NOTOCOTYLE Dies., 1850a, 288, 411, for *Notocotylus* 1839 (m. *triseriale*) (syns. *Fasc. Frœlich*, *Festucaria* Schrank, *Monost. Zed.*, *Notocotylus* Dies.); 1858e, 314, 369; 1859c, 437–438.—Brand., 1891d, 22; 1892, 506, 508.—Braun, 1890a, 515; 1893a, 887, 890, 891, 893, 895, 914, 916, 918; 1893b, 179, 185; 1893d, 466; 1901b, 51, 52; 1901e, 346.—Cohn, 1904, 230.—Gamb., 1896a, 73.—Goldb.,

NOTOCOTYLE—Continued.

1855, 17.—Hoyle, 1890, 539 (N. triseriale Dies.=Monost. verrucosum).—Jackson, 1888, 642 (cf. Monost. verrucosum).—Looss, 1894a 131, 204; 1896b, 147, 1899b, 661–664, 665, 667; 1901, 192 (cf. Monost. verrucosum); 1902m, 546, 602, 610, 612, 639, 701.—Luehe, 1901, 174.—Mont., 1888, 84, 93, 106; 1892m, 24–46, pl. 1, figs. 1–19; —126; 1892, Oct. 7, 182, 183, 214 (gen. cf. Monostomidae); 1892; 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 702, 703, 704, 705, 706, 708, 709, 713, 714; 1893, 15, 24, 27, 28, 52, 83, 84, 91, 105, 108, 144, 205; 1896, 151.—Odhm., 1905, 367, 368, 370.—Ofenheim, 1900, 156, 183.—Ssinitzin, 1896, in 1–20, 1 pl. (in birds at Warschau).—Stoss., 1902, 5.—Tasch., 1879, 234.

egyptiaca Odhn., 1905, 370 (Monost. verrucosum cf. Looss, 1896, renamed).

alveatum (Mehlis, 1845) Mont., 1892, 39, 41, pl. 1, fig. 8 (in *Anas penelope*, *Fuligula marila*, *Harelda glacialis*, *Oidemia fusca*, *Somateria mollissima*).—Braun, 1893a, 916; 1893b, 185.

diserialis Ssinitzin (1896) (in *Rallus aquaticus*).

proteus (Brand., 1891) Mont., 1892, 703; 1892, 30.

triseriale (Dies., 1839) Dies., 1850a, 411–412 (syns. Fasc. verrucosa Frœlich, F. anseris Gmelin, Festuc. pedata Schrank, Monost. verrucosum Zed., M. marillæ Rud., M. lineare Rud.); 1858e, 369 (in *Anas anser dom. et ferus*, *Hæmatopus ostralegus*, *Gryphæ: Fulica atra*); 1859c, 437 (syn. Monost. verr.) (in *Anas tadorna*, *Planorbis*, *Lymnæus*; Belgium).—Ben., 1858a, 1861a, 78 (syn. of Monost. verr.).—Brand., 1891d, 22 (triserialis).—Braun, 1892a, 581; 1893a, 916; 1893b, 177.—Hass., 1896a, 3 (syn. of N. verr. (Frœlich)).—Hoyle, 1890, 539 (= Monost. verr.).—Kowal., 1895g, 41 (1).—Landois, 1882, 23 (triserialis).—Looss, 1894a, 204; 1896b, 146 (syn. of Monost. verr.).—Mont., 1892, 26, 40 (syn. of N. verr. Frœlich).—Odhm., 1905, 367 (syn. of *Catantropis verrucosa*, type of *Catat.*); 1905, 370.—Rail., 1893a, 340 (= N. verr.).—Also reported for *Anas querquedula*, *Anser albifrons*, *A. cinereus*, *A. cinereus dom.*, *A. segetum*, *Fuligula ferina*, *Harelda glacialis*.

verrucosum Mont., 1892, 40 (for *verrucosum*).

verrucosum (Frœlich, 1789) Mont., 1892, 28, 29, 30, 39, 40 (*verrucosum*), 41, pl. 1, figs. 1–7, 9–16 (syns. Monost. verr. Zed., M. attenuatum Rud., M. ovatum Mol., *Notocotyle triseriale* Dies.) (in *Anas bewikii*, *A. boschas dom.*, *A. boschas fer.*, *A. penelope*, *A. querquedula*, *Anser albifrons*, *A. cinereus ferus*, *A. cinereus dom.*, *A. leucopsis*, *A. segetum*, *Ascolopax gallinago*, *Cairina moschata*, *Crex pratensis*, *Cygnus musicus*, *Fulica atra*, *Fuligula cristata*, *F. ferina*, *F. marila*, *Gallinula chloropus*, *Gallus gallinaceus*, *Glaucio clangula*, *Hæmatopus ostralegus*, *Harelda glacialis*, *Mergus merganser*, *M. serrator*, *Oidemia fusca*, *Ortygometra porzana*, *Rallus aquaticus*, *Rhynchaspis clypeata*, *Somateria mollissima*, *Tadorna vulpanser*, *Vanellus cristatus*); 1892, 689, 690, 691, 703, 709; 1893, 24, 51.—Braun, 1893a, 916; 1893b, 185.—Kowal., 1896d, 254 (4) (in *Anas boschas*, *A. crecca*, *Fuligula marila*; Dublany).—Hass., 1896a, 3 (syns. Fasc. verr. (Frœlich), Monost. verr. (Frœlich), M. attenuatum Rud., M. lineare Rud., *Notocotylus triserialis* Dies., *Notocotyle triseriale* (Dies.)) (in *Gallus dom.*).—Looss, 1896b, 146 (syn. of Monost. verr. Frœ.); 1899b, 661, 662, 663, 664, 770; 1902m, 444; (*verrucosa*: *Cerc. imbricata* Looss), 807.—Odhm., 1902, 63 (*verucosa*).—Ols., 1893, 12–13.—Rail., 1893a, 340.—Stoss., 1901, 92 (4) (in *Rallus aquaticus*; Triest).

verucosa Odhn., 1902, 63 (for *verrucosum*).

NOTOCOTYLUS Dies., 1839a, 234 (m. triserialis).—Braun, 1893a, 884.—Cobbold, 1877, 237, 238; 1877f, 326; 1879b, 360.—Mont., 1892, 26 (syn. of *Notocotyle*).—Moul., 1856a, 16.—Nord., 1840, 601–602 (*Nocotylus*).—Pratt, 1902, 890, 910.

triserialis Dies., 1839a, 234–235 (syns. Fasc. verrucosa Frœlich, F. anseris, Fest. pedata Schrank, Monost. verrucosum Zed.) (in *Anas anser dom.*, *A. anser*, *A. querquedula*, *A. boschas dom.*, *A. marila*, *A. penelope*, *A. albifrons*, *Cygnus bewikii*, *Fulica atra*, *Gallinula porzana*, *Phasianus gallus*, *Rallus aquaticus*; Europe), pl. 15, figs. 23–25; 1850a, 411, to *Notocotyle*; 1858e, 369 (in *Anas anser dom. et ferus*, *Hæmatopus ostralegus*, *Greifswald: Fulica atra*).—Ben., 1858a, 1861a, 78 (syn. of Monost. verrucosum).—Crep., 1849a, 68.—Hass., 1896a, 3 (syn. of N. verr. (Frœlich)).—Nord., 1840, 602 (*Nocotylus*) (syns. Fasc. verr., F. anseris, Monost. verr.).—Odhm., 1905, 366 (syn. of *Catantropis verrucosa* (Frœlich)).—Rail., 1893a, 340.

OCBOTRYUM Moul., 1856a, 10, misprint for *Octobothrium*.

- OCHETOSOMA Braun, 1901g, 944 (m. monstruosum); 1902b, 64, 65, 67.—Pratt, 1902, 888, 902.
monstruosum Braun, 1901g, 944 (in *Corone venustissima*; West Indies); 1902b, 65.
- OCREATA Gæze, 1782a, 41, 182–183, a “Gattung” of *Fasciola* Gæze, from a Maulwurf.
- OCTANGIINE Looss, 1902m, 699.
- OCTANGIUM Looss, 1902m, 433, 633, 634, 637, 642, 645, 649, 650, 652, 653, 657, 660, 668, 670, 674, 675, 682, 684–685, 686, 687, 698, 699, 824 (tod. sagitta), family Angiodictyidae.
hasta Looss, 1902m, 686–687, 690, 697, pl. 29, figs. 128–132, 133b (in *Chelone mydas*; apparently Egyptian coast).
sagitta (Looss, 1899) Looss, 1902m, 416, 633, 636, 685–686 (syns. *Monost. proteus* ohne Geschlechtsproducten, of Walter, 1893, 197, pl. 10, figs. 13, 18, 19, etc., *Microscaphidium sagitta* Looss, 1899), 687, 697, pl. 29, figs. 122–127, 133a, pl. 30, figs. 143, 144.
- OCTOBOHTRINÆ Mont., 1903, 336, misprint for Octobothrinæ (f. Octocotylidæ).
- OCTOBOTHRIDÆ Mont., 1888a, 86, 88, for Octobothriidæ.
- OCTOBOTHRIDEA Tasch.—Olss., 1893, 4, subf. to contain Octobothrium, Diplozoon, Diporpa.
- OCTOBOTHRINÆ E. Bl., 1847, 330–331 (for Onchobothriens of Duj., 1845a, 312) (tribe of Trematoda, contains Axine, Diplozoon, Diporpa, Octobothrium, Polyst.).
- OCTOBOTHRIDIÆ Tasch., 1879, 235, 236, 238 (syn. Octocotylidæ Ben.); 1879, 68 (syn. Octocotylidæ Ben.).—Braun, 1890a, 516, 517, 533, 538.—Hoyle, 1890, 539 (Octobothrium, Anthocotyle, Phyllocotyle, Platycotyle, Pleurocotyle, Diplozoon, Hexacotyle, Plectanocotyle).—Jackson, 1888, 654 (Octobothrium, Diplozoon).—Mont., 1888a, 86 (Octobothridæ), 88.
- OCTOBOTHRINÆ Mont., 1903, 336.
- OCTOBOTHRINIUM F. S. Leuck., 1827a, 24 (m. lanceolatum); 1828, 18 (nec Dies., 1850a, Cestode) (m. lanceolatum); 1842a, 18, 29 (syns. *Mazocracs*, *Octost.*).—Ben., 1856e (*Octobothrium du Merlan*); 1858a, 1861a, 11, 44–45, 57, 193, 197, 345; 1868, 22.—Ben. & Hesse, 1864, 61, 102.—Braun, 1889k, 620, 621; 1890a, 445, 451, 469, 471, 477, 480, 489, 490, 515, 516, 517, 518, 522, 523, 534; 1891d, 422; 1895a, 1204; 1900a, 1654, 1657, 1671, 1672, 1679, 1684, 1705, 1726.—Burm., 1837a, 530.—Carus, 1863, 477–478.—Cerf., 1895h, 916, 920, 921; 1895m, 139; 1896, 516, 546; 1899a, 391.—Cobbold, 1879b, 35, 41.—Crep., 1838, 84; 1839, 291.—Dies., 1850a, 417 (of Nord., syn. of *Dididophora*), 419 (of Nord., syn. of *Cyclocotyle*), 421 (syn. of *Octocotyle* Dies.), 423 (syn. of *Discocotyle* Dies.), 480, 603 (Dies., n. g., cestode, m. rostellatum); 1863, 284.—Duj., 1845a, 312–313, 314–315, O. (*Cyclocotyle*).—Gamb., 1896a, 56, 73.—Goto, 1891a, 161, 174, 178, 183, 184; 1891c, 103; 1893a, 798.—Haswell, 1892b, 149; 1893e, 114.—Hoyle, 1890, 539 (of Nord.).—Ijima, 1884c, 638.—Jackson, 1888, 654.—Johnston, 1865a, 30, 31.—Kath., 1894a, 148.—Kroyer, 1843–45a, 166 (in *Lota molva* Cuv.).—R. Leuck., 1863a, 450, 615.—Looss, 1892, 72, 73.—Mayer, 1841a, 25, 33.—Mont., 1888, 83, 84, 88, 89; 1893, 111; 1903, 336 (syns. *Glossocotyle* [+*Ophicotyle*]) (subf. *Octobothrinæ*).—Nord., 1832a, 69, 76–77; 1840, 599.—Par. & Perugia, 1896, in 135–138; 1896, 4 pp.; —, 653.—Pratt, 1900, 646, 652, 656, 660, fig. 33.—St.-Remy, 1898, 523, 544–545.—Schneider, 1866, 334.—Scott, 1901, in 120–153; 1901, 145.—Tasch., 1879, 232, 233, 238, 239, 240, 241, 242, 243; 1879, 248 (of Grube) (syn. of *Pleurocotyle* Gerv. & Ben.); 1879, 35, 59, 69.
1856: *Ocbotryum* Moul., 1856a, 10, misprint.
- alosa* Leuck., (1828).—Cerf., 1895h, 918, 920, 921, 922; 1895m, 140; 1896, 516, 517, 547.—Duj., 1845a, 313 (syn. of *O. lanceolatum*) (in *Clupea alosa*; Rennes).—Mayer, 1841a, 19, pl. 3, figs. 1–8.
- alosa* (Ben. & Hesse, 1863) Braun, 1890a, 414, 418, 534, O. (*Glossocotyle*), 548 (Brest), 550 (in *Alosa vulgaris*).—Tasch., 1879, 244 (syn. *Glossocotyle alosæ*) (in *Alosa vulgaris*).—St.-Remy, 1898, 545.
- alosa* (Hermann, 1782) E. Bl., —.—Ben. & Hesse, 1858a, 1861a, 46 (syn. of *O. lanceolatum*).—Scott, 1901, 8; 1901, 145, pl. 8, fig. 21 (in *Clupea alosa*, C. finta); 1905, 118.—Tasch., 1879, 244 (syn. of *O. lanceolatum* Leuck.).
- alosa* of Mayer, 1841a, 19, see *lanceolatum alosæ*.—Baird, 1853a, 40 (= *O. lanceolatum*).

OCTOBOTHRIUM—Continued.

- arcuatum* (Sons., 1890) Braun, 1890a, 534 (= *Vallisia striata* Par. & Perugia), 551 (in *Lichia amia*).
- bellones* (Otto, 1823) Tasch., 1879, 245–246 (syn. *Cyclocotyle bellones* Otto) (in *Bellone acus*).—St.-Remy, 1898, 555.
- belones* (Otto, 1823) Nord., 1840, 600 (for *bellones*) (syn. *Cyclocotyla bellones* Otto).—Dies., 1850a, 419 (to *Cyclocotyle*).
- bramæ* Par. & Perugia, 1896, 1 (in *Brama rayi*; Genova).—St.-Remy, 1898, 548 (to *Octocotyle*).
- chrysophryi* (Ben. & Hesse, 1863) Braun, 1890a, 418, 535, 548, 550.—Tasch., 1879, 247 (syn. *Choricotyle chr.* Ben. & Hesse) (in *Chrysophrys aurata*).
- denticulatum* Olss., 1876, 10, pl. 1, figs. 13–17 (in *Gadus virens*).—Braun, 1890a, 418, 499, 514, 534, 548, 550.—Cerf., 1895h, 914, 921 (in *Gadus carbonarius*; Skagerrack); 1896, 510–511, 516.—Lint., 1900, 269, 283, 286, pl. 33, figs. 6–10; 1901, 408, 414, 474 (in *Pollachius virens*; Woods Hole, Mass.).—Par., 1899, 4; 1902, 3 (in *Gadus minutus*; Elba).—St.-Remy, 1898, 549 (to *Dactylocotyle*).—Tasch., 1879, 246 (in *Gadus virens*).
- digitatum* Rathke, (1843), 242–244, pl. 12, figs. 13–15 (in *Hippoglossus gigas*; Norway).—Ben., 1858a, 1861a, 50, 51.—Cerf., 1895h, 917 (syn. of *O. palmatum*); 1896, 513.—Dies., 1850a, 418 (syn. of *Diclidophora palmata*); 1858e, 384 (syn. of *Dicl. pal.*); 1859c, 443, to *Octoplectanum*.—Johnston, 1865, 31.—Tasch., 1879, 246 (syn. of *Octob. pal.*).
- [*dipsacum* Lint., 1897a, 806, a cestode.]
- esmarkii* Scott, 1901, 147, pl. 8, fig. 22 (in *Gadus esmarkii*; Shetland); 1905, 118.
- fintæ* (Ben. & Hesse, 1863) Tasch., 1879, 244 (type of *Ophicotyle* Ben. & Hesse) (in *Alosa finta*).—Braun, 1890a, 414, 418, 452, 534, 548, 550.—St.-Remy, 1898, 546.
- harengi* (Ben. & Hesse, 1863) Tasch., 1879, 244 (in *Clupea harengus*).—Braun, 1890a, 414, 418, 452, 534, 548, 550.—St.-Remy, 1898, 545.—Scott, 1901, 145–146 (in *Clupea harengus*); 1905, 118.
- heterocotyle* (Ben., 1870) Tasch., 1879, 245 (in *Clupea sprattus*).—St.-Remy, 1898, 555.
- hirudinaceum* Bartels, 1834, 61 (t. h. *Salmo lavaretus*; St. Petersburg).—Crep., 1839, 291.—Duj., 1845a, 315 (to *Cyclocotyle*).—Leuck., 1842, 30.—St.-Remy, 1898, 555.
- hirundinaceum* Dies., 1850a, 424, for *hirudinaceum* (to *Discocotyle*) (in *Coregonus wartmanni*).
- lanceolatum* Leuck., 1827a, 24 (in *Clupea alosa*; Germany); 1828, 18, pl. 1, fig. 7a–b (in *Alosa vulgaris*); 1842, 29.—Ben., 1858a, 1861a (of Duj.), 45–49, 50, 51, 53, 168, 169, 170, 172, 176, 186, 189, 190, 196, pl. 5, figs. 1–18 (syns. *Mazocraes alosæ* Hermann, *Octob. alosæ* Leuck., *Octost. alosæ* Kuhn, *Octocotyle lanceolata* Dies.); 1868, 5; 1868, 34, figs. 11–12.—Ben. & Hesse, 1864, 101.—Braun, 1890a, 407, 414, 419, 429, 431, 438, 439, 442, 448, 452, 453, 476, 483, 485, 489, 490, 494, 511, 534, 548, 550; 1891a, 52, 54.—Cobbold, 1872b, 90; 1879b, 41.—Crep., 1838, 84; 1839, 291.—Dies., 1850a, 422 (to *Octocotyle*); 1859c.—Duj., 1845a, 313, pl. 8, fig. F.—Fraip., 1880a, 400; 1880c, 416, 433; 1883a, xxxvi.—Jackson, 1888, 646, 649.—Kerbert, 1881a, 556.—Kroyer, 1846–53a, 218 (in *Alosa finta* Cuv.).—Looss, 1894a, 234.—Mont., 1893, 112.—Nord., 1832a, 58, 76, 77 (syns. *Octost. alosæ* Kuhn, *Maz. alosæ* Herm.); 1840, 599 (syns. *Maz. alosæ* Herm., *Octost. alosæ* Kuhn).—Par., 1896, 1.—St.-Remy, 1898, 545.—Tasch., 1879, 241, 242, 244 (syns. *Maz. alosæ* Herm., *Octost. alosæ* Kuhn, *Octob. alosæ* (Herm.) E. Bl., *Octocotyle lanceolata* Dies., *Octoplectanum lanceolatum* Dies.) (in *Alosa vulgaris*).
- lanceolatum alosæ* Mayer, 1841a, 19–25, 4 (*lanceolatum*), pl. 3, figs. 1–9, Hermann's species.
- leptogaster* Leuck., 1830a, 612 (t. h. *Chimæra monstrosa*; Europe); 1842a, 22–23, 30, pl. 1, fig. 5, pl. 2, figs. 2a–b.—Braun, 1890a, 418, 514.—Dies., 1850a, 424 (to *Discocotyle*).—Duj., 1845a, 314–315 to (*Cyclocotyle*).—St.-Remy, 1898, 546.—Tasch., 1879, 245 (syns. *Discocotyle lept.* Dies., *Placoplectanum lept.* Dies.) (in *Chim. monst.*).—Wagener, 1852, 544.
- lusæ* (Ben. & Hesse, 1863) Tasch., 1879, 247 (in *Morrhua lusca*).—Braun, 1890a, 418, 535, 551.

OCTOBOTHRUM—Continued.

- merlangi* (Kuhn, 1830) Nord., 1832a, 76, 78–80, 81, pl. 7, figs. 1–5 (in *Gadus merlangus*), 115, pl. 7, figs. 1–5; 1840, 599.—Ben., 1856a, —; 1856e, —; 1857n; 1858a, 1861a, 49–52 (syn. *Didclidophora longicollis* Dies.) (in *Gad. merl.*).—Braun, 1889h, 621; 1891a, 52; 1890a, 410, 415, 419, 424, 452, 453, 534, 546, 548, 549, 550, 551; 1893b, 179.—Cerf., 1895h, 915–916 [920], 921 (syns. *Octob. platygaster* Leuck., *Dicl. longic. Dies.*, *Octoplectanum longic. Dies.*, *Octob. squillarum* Par. & Perugia) (in *Gad. merl.*); 1896, 511, 516.—Crep., 1838b, 84; 1839a, 291.—Dies., 1850a, 417 (renamed *Didclidophora longicollis*): 1858e, 384 (syn. of *Dicl. longic. Dies.*); 1859c, 443.—Duj., 1845a, 314 to (*Cyclocotyle*).—Gamb., 1896a, 56, fig. 23.—Scott, 1901, 146–147 (in *Gad. merl.*); 1901, 343 (in *Gad. merl.*; Irish Sea); 1905, 118 (Scott, 1895, pl. 4).—Tasch., 1879, 241, 242, 245 (syns. *Dicl. longic. Dies.*, *Octoplectanum longic. Dies.*) (in *Merlangus communis*, *Cymothoa oestroides*).—Reported also for *Box salpa*, *Boops* sp., *Bopyrus squillarum*.
- minus* Olss., 1876, 10 (in *Gadus melanostomus*).—Braun, 1890a, 418, 514, 534, 548, 550.—Cerf., 1895h, 922; 1896, 517; 1898a, 302 (in *Gad. mel.*).—Tasch., 1879, 246 (in *Gad. mel.*).
- morrhue* (Ben. & Hesse, 1863) Tasch., 1879, 246 (in *Gadus morrhua*).—Braun, 1890a, 419, 535, 548, 550.
- palmatum* Leuck., 1830a, 612 (t. h. *Gadus molva*; Germany); 1842a, 24–28, 30, pl. 1, fig. 4 (in *Gad. mol.*).—Ben. & Hesse, 1864, 107 (to *Pterocotyle*).—Braun, 1890a, 419, 492, 494, 497, 514, 535, 548, 551.—Cerf., 1895h, 916–917, 921 (syns.: *Octodactylus* [type] *inhærens* Dalyell, *Octob. digitatum* Rathke, *Didclidophora pal. Dies.*, *Pterocotyle pal. Ben. & Hesse*, *Octoplectanum pal. Dies.*) (in *Gad. mol.*); 1896d, 513, 516.—Dies., 1850a, 418 (to *Didclidophora*).—Duj., 1845a, 314 to (*Cyclocotyle*).—Johnston, 1865a, 31.—Kroyer, 1838–40a, 608 (in *Lota molva* L.).—Tasch., 1879, 241, 242, 246 (syns.: *O. digitatum* Rathke, *Dicl. pal. Dies.*, *Octoplectanum pal. Dies.*, *Octodactylus inhærens* Dalyell, *Pterocotyle pal. Ben. & Hesse*) (in *Molva vulgaris*, *Hippoglossus gigas*).—Reported also for *Gadus merlangus*.
- phycidis* (Par. & Perugia, 1889) Braun, 1890a, 418, 535, 548, 551 (in *Phycis blennoides*).
- pilchardi* (Ben. & Hesse, 1863) Tasch., 1879, 244 (in *Clupea pilchardus*).—Braun, 1890a, 414, 418, 534, 548, 550.—St.-Remy, 1898, 546.
- platygaster* Leuck., 1842a, 30 (in *Gadus merlangus*).—Cerf., 1895h, 915 (syn. of *O. merlangi*); 1896a, 511.—Duj., 1845a, 314 (syn. of *O. merlangi*).
- pollachii* (Ben. & Hesse, 1863) Tasch., 1879, 246–247 (in *Merlangus pollachius*).—Braun, 1890a, 415, 418, 452, 535, 548, 551.—Par. & Perugia, 1891, 18, to (*Dactylocotyle*).
- [*rostellatum* Dies., 1850a, 603 (syns. *Tænia erythrini* Fabricius, *Halysis octolobata* Zed., *Tænia octolobata* Rud.) (in *Sebastes norvegicus*); 1863, 284 (misprint *Onchobothrium rostellatum* Dies.).—Braun, 1895a, 1204.—Kroyer, 1852–53a, 595?, 1261.—Luehe, 1899, 542.—Zschokke, 1903, 27, 28.]
- sagittatum* Leuck., 1842a, 49–57, pl. 2, fig. 5a–k (in *Salmo fario*).—Braun, 1890a, 518, 534, 548, 551.—Dies., 1850a, 424 (to *Discocotyle* as type); 1858e, 384 (syn. of *Didclidophora palmata*); 1859c, 443 (syns. *Octoplectanum longicolle*, *O. palmatum*).—Duj., 1845a, 314.—Hofer, 1903e, 38–39, 1 fig. (pernicious anemia).—Pratt, 1900a, 656, 657, 660 (key), fig. 33.—St.-Remy, 1898, 555.—Tasch., 1879, 241, 243–244 (syns. *Cyclocotyle lanceolata*, *Discocotyle sag.*, *Placoplectanum sag.*) (in *Salmo fario*).—Also reported for *Coregonus lavaretus*, *Salmo trutta*.
- scomberi* (Kuhn, 1829) Nord., 1832a, 76, 77–78 (in *Scomber scomber*); 1840, 599.—Ben. & Hesse, 1864, 100 (of Grube to *Pleurocotyle*).—Braun, 1890a, 410, 418, 452, 514, 534, 548, 552.—Burm., 1837, 530.—Crep., 1838b, 84; 1839a, 291.—Dies., 1850a, 424 (syn. of *Otocotyle tunicata*): 1858e, 385 (of Grube, renamed *Grubea cochlear*, type of Grub.).—Duj., 1845a, 313, pl. 8, fig. e.—Grube, 1855a, 137–140, pl. 6, figs. 1–3 (on *Scomber scomber*), see also *Tetracotyle scomberi*.—Leuck., 1842a, 30.—Scott, 1901a, 344 (in *Mackerel*; Manx coast); 1901, 146, pl. 8, fig. 20 (in *Scomberscombrus*); 1905, 118.—Stoss., 1898, 12.—Tasch., 1878, 574, 575, 576 (of Grube, to *Pleurocotyle*); 1879, 241, 242, 243 (syn. *Otocotyle truncata*, *Octoplectanum trunc.*, *Otocotyle* sc.). (in *Sc. scombrus*, *S. colias*; Naples). 248 (of Grube) (to *Pleurocotyle*).
- smaris* Ijima, in Goto, 1894a, 207, see sub *Didclidophora*.—Cerf., 1895m, 140; 1896, 547.

OCTOBOTHRIUM—Continued.

species Ijima, 1884c, 637.

species Braun, 1890a, 472.

squillarum (Par. & Perugia, 1889) Cerf., 1895h, 916, syn. of *Octob. merlangi* (Kuhn); 1896, 512.—St.-Remy, 1898, 555 (syn. of *Dactylocotyle merlangi*, teste Parona).

taschenbergii (Par. & Perugia, 1898) Braun, 1890a, 535, 548, 552 (in *Sargus rondeletii*).

thunninæ (Par. & Perugia, 1898) Braun, 1890a, 419, 534, 548, 552 (in *Thynnus thunnina*).

OCTOBOTHRYUM Fraip., 1883a, 36, for Octobothrium.

OCTOCOLYTE Mont., 1888a, 57 (for Octocotyle).

OCTOCOTYLE Dies., 1850a, 289, 421–422 (includes lanceolata [type by inclusion] and truncata); 1858e, 382–393, renamed Octoplectanum, (syns. Mazocraes, Octobothrium, Octostoma).—Ben. & Hesse, 1864, 96, 97.—Braun, 1890a, 477, 516; 517, 518, 522, 546; 1893a, 890.—Burn., 1856a, 251.—Cerf., 1895h, 918, 920; 1895m, 139; 1896, 514, 515, 516, 547; 1899a, 391.—Cunningham, 1897a, 279.—Goldb., 1855a, 19.—Goto, 1893a, 798; 1894a, 201.—Mont., 1888a, 7, 8, 11, 59, 66, 86, 89, 99; 1892, Oct. 7, 213 (g. of Octocotylinæ) (contains as subg.: Vallisia, Anthocotyle, Diplozoon, Hexacotyle, Phyllocotyle, Plectanocotyle, Platycotyle, Pleurocotyle); 1903, 336 (subf. Octocotylinæ).—Pratt, 1900, 646, 652 (key), 656, fig. 34.—St.-Remy, 1898, 523, 545, 546.—Stoss., 1898, 12.—Tasch., 1879, 239, 241, 242.—See Mazocraes 1782.

1858: Octoplectanum Dies., 1858e, 382 (Octocotyle renamed, hence same type).

1888a: Octocolyte Mont., 1888a, 57, misprint.

1894: Octocotyle: Par., 1894, 594, misprint.

appendiculata (Kuhn, 1829) Sons., 1890, 176.

arcuata Sons., 1890, 112–113 (on *Lichia amia*; [Mus. Pisa]); 1890, 137–139 (syn. of *striata* Par. & Perugia).—Par. & Par., 1891, 17.

bramæ (Par. & Perugia, 1896) St.-Remy, 1898, 547–548 (in *Brama rayi*).

emarginata (Olss., 1876) Sons., 1890, 176.

harengi Ben. & Hesse, 1863, 1864, 98–99, pl. 9, figs. 1–10 (in *Clupea harengus*).—Braun, 1890a, 498.—Mont., 1888a, 13.—Tasch., 1879, 244 (to Octobothrium).

lanceolata (Leuck., 1828) Dies., 1850a, 422 (includes Mazocraes alosæ Hermann, Octobothrium lanceolatum Leuck., Octostoma alosæ), in *Alosa vulgaris*; 1858e, 383 (to Octoplectanum); 1859c, 442 (to Octoplectanum).—Baird, 1853a, 40.—Ben., 1858a, 1861a, 44, 46 (to Octobothrium).—Cerf., 1895m, 139; 1896, 547.—Hausmann, 1897b, 4, 7, 20, 23 (in *Alosa vulgaris*).—Mont., 1888a, 13, 34; 1888, 26 (lanceolatus); 1893, 111.—Tasch., 1879, 244 (to Octobothrium).

lanceolatus Mont., 1888a, 26, for lanceolata.

leptogaster (Leuck., 1830, 1842) Par. & Perugia, 1890, 6, to (Octobothrium); 1892, 2–5 (87–90), pl. 3, figs. 7–8.—Par., 1894, 135 (in *Chimæra monstrosa*; Nizza).—Wagener, 1852, 544.

major Goto, 1894a, 203–205, pl. 9, figs. 1–6 (on gills of *Scomber colias*; Misaki); 1899, 274, 275, 276.—Cerf., 1895m, 140 (in *Sc. col.*); 1896, 547.—St.-Remy, 1898, 546–547.

majus St.-Remy, 1898, 547, misprint for major.

merlangi (Kuhn, 1829) Mont., 1888a, 11, 26; 1890, 420; 1893, 111.—Par., 1894, no. 727; 1894, no. 1060.

minor Goto, 1894a, 205–206; pl. 9, figs. 7–13 (on gills of *Scomber colias*; Japan); 1899, 274, 275, 276.—Cerf., 1895m, 140 (in *Sc. col.*); 1896, 547.—St.-Remy, 1898, 547.

pilchardei Mont., 1888a, 66, misprint for pilchardi.

pilchardi Ben. & Hesse, 1863, 1864a, 99, pl. 9, figs. 29–35 (on *Clupea pilchardus*).—Braun, 1890a, 498.—Mont., 1888a, 13, 66 (*pilchardei*).—Tasch., 1879, 244 (to Octobothrium).

scombri (Kuhn, 1829) Ben. & Hesse, 1864a, 97–98 (on maquereau).—Cerf., 1895m, 140 (in *Scomber scombrus*); 1896, 547.—Goto, 1899a, 274–276.—Kroyer, 1838–40a, 595 (in *Sc. sc.*).—Mont., 1890, 421.—Par. & Perugia, 1889, 742, fig. 3 (in *Sc. sc.*; Genova); 1890, 742, fig. 3; 1890, 6.—Par., 1894, 503.—Pratt, 1900, 656, 657, 660, fig. 34.—St.-Remy, 1898, 546.—Staff., 1904, 482 (in *Sc. sc.*; Canada).—Stoss., 1892, 66; 1898, 12.—Tasch., 1879, 243 (to Octobothrium).—Also reported for *Sc. colias*.

OCTOCOTYLE—Continued.

species Mont., 1888a, 57, 58.

striata (Par. & Perugia, 1890) Sons., 1890, 137–139 (syn. *O. arcuata* Sons.) (in *Seriola dumerilii*, Pisa; *Lichia amia*, Pisa and Triest); 1891, 9. März, 87–88, to (Vallisia).

thunninae Par. & Perugia, 1889, 742–743, fig. 4 (in *Thynnus thunnina*; Genova); 1890, 742–743, fig. 4 (in *Th. thunnina*; Genova); 1890, 6.—Par., 1894, 594 (Octocotyle).—St.-Remy, 1898, 557.

thynni Par. & Perugia, 1891, 19 [lapsus for *thunninae*?].

truncata Dies., 1850a, 422 (*Octostoma scombri*, Kuhn, 1829, renamed) (t. h. *Scomber scombrus*; Rhedoni); 1858e, 383 (to *Octoplectanum*).—Cerf., 1895m, 139, [140]; 1896, 547.—Stoss., 1898, 12.—Tasch., 1879, 243 (to *Octobothrium*).

OCTOCOTYLIDÆ Ben. & Hesse, —.—Braun, 1890a, 511, 516, 517, 519, 523, 533, 546.—Cerf., 1895e, 523; 1896d, 497–560, pls. 22–25; 1896, 509, 1899a, 345; 365, 452.—Mont., 1888a, 8, 11, 13, 18, 20, 34, 66, 84 (Octocotylides), 88, 89, 90, 99, 108; 1903, 336 (subf. *Onchocotylinae*) (g. *Squalonocotyle*, *Onchocotyle* [= *Acanthocotyle*], *Rajonchocotyle*); *Octocotylinae* (g. *Octocotyle*, *Dactycotyle* [= *Pterocotyle*]); *Octobothrinae* (g. *Octobothrium* [= *Glossocotyle* [+ *Ophicotyle*]], *Diplozoon*, *Vallisia*); *Dididophorinae* (g. *Dididophora* [= *Choricotyle*], *Cyclobothrium*, *Heterobothrium*); *Plagiopeltinae* (g. *Hexacotyle* [= *Plagiopeltis*]); *Diaphorocotylinae* (g. *Erpocotyle*, *Anthocotyle*); 1905, 77.—Par. & Perugia, 1890, 6 (= *Polystomeae* Tasch.).—Scott, 1901, 141.—Sons., 1890, 138.—Tasch., 1879, 68 (syn. of *Octobothriidae*); 1879, 235 (Octocotylides); 1879, 236 (syn. of *Octobothriidae*).

OCTOCOTYLIDÆ Cerf., 1900, 436–438.

OCTOCOTYLINÆ Braun, 1893a, 890.—Gamb., 1896, 73.—Mont., 1892, Oct. 7, 213 (subf. of *Polystomidae*); 1903, Dec., 336 (f. *Octocotylidæ*).—Pratt, 1900, 651 (includes: *Octocotyle*, *Octobothrium*, *Dactycotyle*, *Dididophora*, *Anthocotyle*, *Vallisia*, *Diplozoon*, *Phyllocotyle*, *Hexacotyle*, *Plectanocotyle*, *Platycotyle*, *Pleurocotyle*).—St.-Remy, 1898, 523, 544.—Scott, T., 1901, 141.

OCTOCOTYLE Par., 1894, 594, misprint for *Octocotyle*.

thunninae (Par. & Perugia, 1889) Par., 1894, 594.

OCTODACTYLUS Dalyell, 1853a, 262 (m. *inhærens*).—Braun, 1890a, 518.—Goto, 1893a, 798.—Tasch., 1879, 239.

inhærens Dalyell, 1853a, 262–263, pl. 36, figs. 1–2 (on the ling).—Ben. & Hesse, 1864a, 107 (syn. of *Pterocotyle palmata* Ben. & Hesse).—Braun, 1889a, 348 (is *Octobothrium*).—Cerf., 1895h, 917 (syn. of *Octobothrium* pal.); 1896, 513.—Johnston, 1865a, 31.—Tasch., 1879, 246 (syn. of *Octob. pal. Leuck.*).—Reported for *Gadus morrhua*.

OCTOPLECTANUM Dies., 1858e, 315, 382–383 (*Octocotyle*, 1850, renamed, hence *lanceolata*=*aloseae* (*Mazocraes*), type by renaming and inclusion); 1859, 442.—Braun, 1890a, 518.—Tasch., 1879, 239.—See *Mazocraes*.

affine Lint., 1898c, 511–512, pl. 40, figs. 10–13, pl. 41, figs. 1–5 (in *Paralichthys dentatus*; Woods Hole, Mass.).

harengi (Ben. & Hesse, 1863) Linst., 1889, 95, in *Clupea harengus*.

heterocotyle (Ben., 1870) Linst., 1885, 252–253, pl. 15, fig. 30; 1889, 96, in *Clupea sprattus* Bl.

lanceolatum (Leuck., 1828) Dies., 1858e, 383 (in *Alosa vulgaris*); 1859, 442–443 (includes *Mazocraes aloseae* Hermann, *Octobothrium lanc.*, *Octost. aloseae* Kuhn, *Octocotyle lanc.*).—Tasch., 1879, 244 (to *Octobothrium*).—Type by renaming and inclusion.

longicolle (Dies., 1850) Dies., 1859c, 443.—Cerf., 1895h, 915 (syn. of *Octobothrium merlangi*); 1896, 512.—Tasch., 1879, 245 (syn. of *Octob. merl. (Kuhn)*).—Reported for *Merlangus pollachius*, *M. vulgaris*, *Morrhua barbata*.

palmatum (Leuck., 1830) Dies., 1859c, 443.—Cerf., 1895h, 917 (to *Octobothrium*); 1896, 513.—Tasch., 1879, 246 (to *Octob.*).—Reported for *Hippoglossus gigas*, *Lota molva*.

pilchardi (Ben. & Hesse, 1863) Linst., 1889, 95 (in *Clupea pilchardus*).

truncatum (Dies., 1850) Dies., 1858e, 383 (in *Scomber scombrus*; Rhedoni); 1859c, 443–444.—Stoss., 1898, 12.—Tasch., 1879, 243 (syn. of *Octobothrium scombri* (Kuhn)).

OCTOSTOMA Otto, 1823, 302, as syn. of *Cyclocotyla* [not *Octostoma* syn. of *Polyst.*].

- OCTOSTOMA Kuhn, 1829b, 358–363 (alosæ=lanceolata=alosæ (Mazocraes), type by inclusion, also type by first species rule).—Braun, 1890a, 518.—Cerf., 1899a, 349.—Mayer, 1841a, 20.—Tasch., 1879, 239.
- alosæ* Kuhn, 1829b, 358–361 (in Clupea alosa), pl. 17, figs. 1–3.—Ben., 1858a, 1861a, 44, 46 (syn. of Octobothrium lanceolatum).—Cerf., 1899a, 348, 349.—Duj., 1845a, 313 (=Octob. lanc.).—Nord., 1832a, 76, 77, 82 (syn. of Octob. lanc.).—Tasch., 1879, 241, 244 (syn. of Octob. lanc.).
- heterocotyle* Ben., 1870, 67 (in Clupea sprattus).—Tasch., 1879, 245 (to Octobothrium).
- merlangi* Kuhn, (1829b) (t. h. Merlangus communis).—Ben., 1858a, 1861a, 44, 49, 168, 169, 172, 196 (to Octobothrium).—Cerf., 1895h, 915 (to Octob.); 1896, 511; 1899a, 349.—Crep., 1839a, 291.—Duj., 1845a, 314 (to Octob.).—Nord., 1832a, 78–80, 82 (to Octob.) (in Gadus merlangus); 1840, 599 (to Octob.).—Scott, 1901, 343 (to Octob.).—Tasch., 1879, 245 (to Octob.).
- scomberi* Kuhn, 1829b, 361–362, pl. 17, figs. 4–5 (t. h. Scomber scomber).—Cerf., 1899a, 348, 349.—Duj., 1845a, 313 (to Octob.).—Nord., 1832a, 77–78 (to Octob.); 1840, 599 (to Octob.).—Scott, 1901, 344 (to Octob.).—Stoss., 1898, 12 (in Sc. scombrus; Triest).—Tasch., 1879, 243 (to Octob.).
- OGMOGASTER Jægers., 1891, 131 (m. plicatus); 1891b; 1892a.—Brand., 1892, 506.—Braun, 1892a, 605, 609, 641, 664, 671, 676, 677, 683, 684, 685, 699, 704, 708, 709, 711, 715, 717, 718, 721, 725, 726, 729, 737; 1893a, 887, 890, 893, 895, 914, 916, 918; 1893b, 179.—Gamb., 1896a, 73.—Lander, 1904a, 5.—Looss, 1899b, 664–665; 1902m, 610.—Mont., 1892, Oct. 7, 214 (g. of Monostomidæ); 1893, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 701, 702, 703, 704, 705, 713; 1893, 28, 83, 144, 203, 205.—Ofenheim, 1900, 156.—Pratt, 1902, 890, 910 (key).—Rossbach, 1906, 374.
- plicatus* (Crep., 1827) Jægers., 1891, 129, 132, 134; 1891b, 32 pp., figs. 1–6; 1892a, 572–573.—Bettend., 1897, 319; 1897a, 15.—Braun, 1892a, 575, 600, 603, 607, 608, 609, 638, 640, 641, 647, 682, 688, 712, 717, 718, 719, 724, 731, 733, 765; 1893a, 917 (in Balænoptera musculus, B. borealis); 1893b, 177 (plicata), 186; 1901e, 344.—Darr, 1902, 657.—Looss, 1899b, 665.—Mont., 1892, 685, 689; 1893, 203.—Odhn., 1905, 366 (Monost. plicatum).
- OISTOSOMUM Odhn., 1902, 26–27 (m. caduceus); 1902, 42.—Pratt, 1902, 888, 899.
- caduceus* Odhn., 1902, 26–27 (in Krokodil; Sudan).
- OLIGOCOTYLIDÆ Par. & Perugia, 1890, subf.—Braun, 1890a, 546.—Cerf., 1899a, 365, 452.
- OLYOCOTYLEA Mont., 1903, 335–336 (“Sezione” contains: Tristomidæ Ben., 1858, Monocotylidæ Tasch., 1879).
- OMPHALOMETRA Looss, 1899b, 562 (m. flexuosa) (ὁ ὀμφαλῖκος=Nabel or Mitte; ἡ μήτρα=uterus); 1902m, 839.—Braun, 1901b, 33.—Pratt, 1902, 887, 896.—Stoss., 1901, 93 (5).
- flexuosa* (Rud., 1809) Looss, 1899b, 562.—Stoss., 1901, 93 (5).
- OMPHALOMETRINÆ Looss, 1899b, 543, 562; 1902m, 839.—Luehe, 1900, 490.—Pratt, 1902, 887, 896 (includes: Omphalometra, Cathamasias).—Stoss., 1901, 93 (5).
- ONCHOCOTILINÆ Cerf., 1899a, 396 (for Onchocotylinæ).
- ONCHOCOTYLE Dies., 1850a, 289, 419 (m. appendiculata); 1858e, 314, 370–371; 1859c, 438.—Ben., 1853b, 59–68, figs. 1–11; 1858a, 1861a, 11, 54, 345.—Ben. & Hesse, 1864, 84.—Brand., 1891d, 21; 1894a, 308.—Braun, 1890a, 413, 415, 434, 437, 438, 444, 451, 471, 473, 474, 475, 484, 490, 491, 511, 515, 516, 517, 523, 538, 539, 546; 1893a, 890.—Carus, 1863, 478.—Cerf., 1899a, 345, 346, 347, 351, 359, 365, 368, 369, 371, 402, 411, 434, 452.—Chatin, 1880f, 591; 1881a, 311.—Gamb., 1896a, 73.—Goldb., 1855a, 19.—Goto, 1893a, 798, 800; 1894a, 222–224.—Haswell, 1887a, 286.—Hoyle, 1890, 539.—Jackson, 1888, 647, 654.—Kerbert, 1881a, 544, 554, 572.—Looss, 1894a, 203.—Mont., 1888a, 11, 16, 34, 36, 38, 43, 52, 53, 56, 57, 58, 59, 60, 65, 66, 67, 84, 86, 100; 1892, 35, 36; 1892, Oct. 7, 213 (g. of Polystominae); 1893, 118; 1903, 336 (syn. Acanthoncotyle) (subf. Onchocotylinae).—Pratt, 1900, 646, 651, 656, fig. 26.—St. Remy, 1890, Nov. 1, 41–43; 1898, 558.—Scott, T., 1901, 151.—Sons., 1890, 176–177.—Stoss., 1898, 11.—Tasch., 1878, 176; 1879, 36, 44, 45, 47, 50, 51, 53, 55, 60, 62, 64, 65, 66, 69; 1879, 252, 255 (syns.: Polyst. Kuhn, Hexabothrium Nord.).—Ziegler, 1883, 556.
- 1899: Acanthoncotyle Cerf., 1899a, 347 (appendiculata).

ONCHOCOTYLE—Continued.

abbreviata Olss., 1876, 12, pl. 2, figs. 27–28 (in *Acanthias vulgaris*).—Braun, 1890a, 418, 499, 539, 548, 550.—Cerf., 1899a, 361, 368, 369, 375 (to *Squalonchocotyle*).—St.-Remy, 1890, 42, 43 (in *Ac. vulg.*).—Sons., 1890, 177.—Staff., 1904, May 3, 482 (on *Squalus acanthias*; Canada).—Tasch., 1879, 253 (in *Ac. vulg.*); 1879, 29 (in *Ac. vulg.*).

appendiculata (Kuhn, 1830) Dies., 1850a, 419 (includes *Hexabothrium*); 1858e, 370–371 (in *Mustelus laevis*, *M. vulgaris*, *Scyllium catulus*), 371 (pars, from *Læmargus borealis*, syn. of *O. borealis*); 1859c, 438 (of Ben., 1858a, in *Must. vulg.*, *Galeus canis*).—Ben., 1858a, 1861a, 54–58, 59, 168–169, 172, 177, 197, pl. 6, figs. 1–12 (in *Mustelus vulg.*, N. Sea and Adriatic; *Galeus canis*; *Scyllium catulus*, Mediterranean; *Læmargus borealis*, Greenland); 1870, 5, 6, 16.—Brand., 1891d, 20.—Braun, 1889k, 622; 1890a, 408, 410, 414, 415, 419, 420, 421, 428, 429, 434, 437, 438, 442, 449, 453, 454, 457, 462, 465, 481, 489, 498, 499, 500, 512, 514, 539, 548, 550, 551, 552; 1890e, 594; 1893b, 178.—Cerf., 1899a, 350, 351, 357, 358, 359, 360, 361, 362, 364, 366, 367, 368, 369, 371, 374, 378 (in *Lemargus borealis*, *Scyllium catulus*), 374 (of Stoss., 1887, syn. of *Acanthonchocotyle canicula*), 376 (of Tasch., 1879, syn. of *Squalonchocotyle grisea*), 376 (of Olss., 1867 and 1876, syn. of *Rajonchocotyle batis*), 376 (of Sons., 1890, syn. of *Rajonch. prenanti*).—Cobbald, 1879b, 464.—Fraip., 1880c, 416.—Goto, 1891a, 162.—Ijima, 1884c, 638.—Jackson, 1888, 647.—Juel, 1889, 36.—Kerbert, 1881a, 533.—Kroyer, 1852–53a, 926 (in *Scymnus microcephalus*).—Looss, 1885b, 5, 10.—Mont., 1888a, 8, 15, 23, 26, 37, 42; 1890, 421.—Par. & Perugia, 1890, 7.—Scott, 1901, 151, pl. 8, figs. 30, 31 (in *Galeorhinus galeus*, *Mustela vulgaris*, *Raja batis*, *R. clavata*, *Scylliorhynchus catulus*); 1901, 344 (in *Raja batis*; Irish Sea); 1905, 118 (see Scott, 1901, pl. 8).—Sons., 1890, 176, 177 (see also *Octocotyle* app.); 1891, 259–260 (syn. of *O. emarginata* Olss.).—St.-Remy, 1890, 42, 43 (in *Scyllium catulus*, *Mustelus vulg.*, *M. laevis*, *Galeus canis*, *Raja batis*, *Hexanchus griseus*, *Ac. vulg.*).—Stoss., 1885, 162; 1898, 11.—Tasch., 1878, 176; 1878, 566, 574; 1879, 253 (syn. *Hexathyridium* app. Nord.) (in *Scyllium catulus*, *Mustelus laevis*, *M. vulgaris*, *Hexanchus griseus*, *Raja batis*, *Galeus canis*); 1879, 19–20; 1879, 24–47, pl. 3, figs. 1–3, pl. 4, figs. 1, 3–6 (syns. *Hexabothrium* app. Kuhn, *Polyst. app. Nord.*).—Ziegler, 1883, 345, 557.

borealis Sons., 1890, 177, misprint for *borealis*.

borealis Ben., 18531, 59–68, figs. 1–11 (in *Scymnus glacialis*); 1858a, 1861a, 58–59 (in *Sc. gl.*); 1870, 12.—Braun, 1890a, 408, 419, 461, 539, 548.—Cerf., 1899a, 346, 356–358, 359, 360, 361, 362, 364, 367, 368, 369, 372, 378 (in *Scymnus glacialis*), 374 (to *Squalonchocotyle* in *Scymnus borealis*), 376 (of Stoss., 1885, syn. of *Rajonchocotyle prenanti*).—Dies., 1858e, 371 (in *Læmargus borealis*) (syns.: *O. appendiculatum* Dies., *Polyst. borealis* Wag.); 1859c, 438.—Linst., 1889, 101 (in *Læmargus borealis*).—Odhn., 1905, 372 (to *Squalonchocotyle*).—Par., 1894, No. 1050.—Par. & Perugia, 1890, 7.—St.-Remy, 1890, 42, 43 (in *Scymnus borealis*).—Sons., 1890, 177 (*borealis*).—Stoss., 1885, 162; 1890, 52; 1898, 12.—Tasch., 1879, 253 (in *Scy. bor.*); 1879, 29, 32 (in *Scy. bor.*).—Also reported for *Læviraja oxyrhynchus*.

canis (Cerf., 1899) Pratt, 1900a, 656, 657, fig. 26.

emarginata Olss., 1876, 11–12, pl. 2, figs. 23–26 (in *Raja clavata*).—Braun, 1890a, 419, 494, 499, 539, 548, 551.—Cerf., 1899a, 361, 366, 367, 368, 369, 375, 378.—St.-Remy, 1890, 42, 43 (in *R. clav.*).—Sons., 1890, 176, 177 (see also *Octocotyle emarginata*); 1891, 259, 260 (syn. of *O. appendiculata* Kuhn).—Tasch., 1879, 253 (in *R. clav.*); 1879, 29 (in *R. clav.*).

prenanti St.-Remy, 1890, 41–43 (in *Raja oxyrhynchus*; Roscoff).—Cerf., 1899a, 365, 368, 376 (to *Rajonchocotyle*) (in *R. oxyr.*).—Goto, 1894a, 223.—Sons., 1890, 177 (in *R. oxyr.*).

scymni ainosi Dies., 1858e, 371 based on Wagener, 1857, 72 (in *Scymnus ainosi*).—Cerf., 1899a, 360, 362, 377.—Linst., 1878a, 282.—St.-Remy, 1890, 41.

spinacis Goto, 1894a, 224–226, pls. 15–16, gills of *Spinax* sp.; at Odawara, Japan.—Cerf., 1899a, 370, 372, 376, 435 (to *Squalonchocotyle*).—St.-Remy, 1898, 558.

ONCHOCOTYLINÆ Cerf., 1899a, 345–478, pls. 18–21, 396 (*Onchocotylinae*); 1900a, 436–438.—Mont., 1903, 336 (f. *Onchocotylidae*).

ONCHOGASTER Claparède, 1863a, 13 (m. *natator*).

natator Claparède, 1863a, 13, pl. 5, figs. 1–4.—Braun, 1889a, 363, after Leuck., 1863, 95, is perhaps a free swimming polystome larva.

- OPHICOTYLE Ben. & Hesse, 1863; 1864, 96, 101 (m. *fintæ*).—Braun, 1890a, 414, 477, 516, 517, 522, 546.—Cerf., 1895h, 918; 1896, 514.—Mont., 1888a, 8, 11, 86 (Ophycotyle), 89, 99 (Ophycotyle).—Tasch., 1879, 240.
- 1888: Ophycotyle Mont., 1888a, 8, 11, 86, 89, 99 for Ophicotyle.
- alosæ* Mont., 1888a, 13 (Ophycotyle).
- fintæ* Ben. & Hesse, 1863; 1864, 101–102, pl. 9, figs. 19–28 (in *Alosa finta*).—Braun, 1890a, 446.—Tasch., 1879, 244 (to Octobothrium).
- OPHTHALMOPHAGUS Stoss., 1902, 8, 28–29 (m. *singularis*), subf. *Cyclocœlinæ*.
- singularis* Stoss., 1902, 29, pl. 7, fig. 27 (in *Gallinula pusilla*; loc. not given).
- OPHYCOTYLE Mont., 1888a, 8, 11, 86, 99, for Ophicotyle.
- alosæ* Mont., 1888a, 13.
- OPISCORCUS Woolley, 1906, Oct. 6, 1090 (misprint for Opisthorchis).
- OPISTHIOGLYPHE Looss, 1899b, 588–589, 592 (tod. *endoloba*) (*ὀπισθίος*=hindermost; *ἡ γλυφή*=das Eingegrabene).—Pratt, 1902, 888, 896, 898.
- endobala* Ssinitzin, 1906, 685, for *endoloba*.
- endobola* Ssinitzin, 1905, 121–136; 1906, 686, 687, for *endoloba*.
- endoloba* (Duj., 1845) Looss, 1899b, 589.—Braun, 1906, 137, figs. 72–73 (in frog).—Kowal., 1902d, 27 (9).—Ssinitzin, 1905, 121–136; 1906, 685 (*endobala*), 686, 687 (*endobola*) (*Cerc. gibba* is larva) (in *Rana esculenta*, *R. temporaria*; Warschau).—Staff., 1905, 686–687 (Duj. of Staff., 1900, 403, renamed *Glypthelmins queta*).—Stoss., 1901, 96 (8) (in *Rana esculenta*; Triest).—Ward, 1903, 862.
- siredonis* (Poir., 1886) Looss, 1899b, 589.
- OPISTHODISCUS Cohn, 1904, 240 (m. *diplodiscoides*), 242, 243.
- diplodiscoides* Cohn, 1904, 240–243, figs. 6–8 (in *Rana esculenta*; Coll. Creplin).
- OPISTHOGONIMUS Luehe, 1900aa, 555–558, 562 (m. *lecithonotus*=*philodryadum*).—Looss, 1901b, 206; 1902m, 839.—Odhn., 1902, 41.—Pratt, 1902, 888 (related to *Haplometrinæ*), 901.
- lecithonotus* Luehe, 1900aa, 555–558 (in *Coluber* sp., *Coluber eririo*, *Philodryas schotti*; Brazil); 1900ee, 743 (=O. *philodryadum* (West)).
- philodryadum* (West, 1895) Luehe, 1900ee, 743 (in *Philodryas schottii*; Brazil).
- OPISTHORCHIASIS.—A term proposed by Looss, 1905, 88, to designate infection with *Opisthorchis*.—Aoyama, 1891a.—Askanazy, 1904, 698 (in man, etiology and pathology); 1904, Nov., 229–230.—Huber, 1896, 578.—Katsurada, 1900, 495, 500–503 (in man).—Macgregor, 1877, 3–16.—See also *distomatosis*, *hepatic*, *Japan*.
- [O. *felineus*; Askanazy, 1904, (19); 1905, Jan. 10, 790.]
- OPISTHORCHIC Stiles, 1901h, 1539 (misprint for *Opisthorchis* Bl. 1895).
- OPISTHORCHIDÆ Luehe, 1901, 486, for *Opisthorchiidæ*.
- OPISTHORCHIIDÆ Braun, 1901b, 34.—Jägers., 1903a, 15 (*Opisthorchidæ*).—Looss, 1902m, 839, 840 (contains *Echinostominæ*, *Omphalometrinæ*, *Opisthorchiinæ*, *Rhopaliadinæ*; *Azygia*; *Allocreadium*; *Rhytidodes*; *Calycodes*).—Luehe, 1901, 486.
- OPISTHORCHIINÆ Looss, 1899b, 543, 563, 564, 565, 566; 1902m, 718, 839.—Braun, 1901b, 20.—Luehe, 1900, 490.—Pratt, 1902, 888, 895 (includes *Opisthorchis*, *Holometra*, *Metorchis*; related genus, *Podocotyle*).—Ward, 1903, 863.
- OPISTHORCHIS R. Bl., 1895f, 217 (tod. *felineus*); 1896b, 730.—Braun, 1900g, 250; 1901b, 20; 1901, 564; 1901e, 314; 1902b, 5, 6, 7 (re *Campula*, Stiles & Hass. have stated that *Campula* was erroneously made syn. of *Opisthorchis*): 1903, 3 ed., 157 (erroneously dated 1845); 1906, 163.—Heymann, 1905, 98.—Jacoby, 1900, 7, 9, 16.—Kamensky, 1900a, 3, 4, 5, 13, 19.—Kowal., 1898g, 74; 1898h, 131, 136, 140, 142–148 (28, 33, 37, 39–45); 1898, 121–148.—Looss, 1899b, 539, 549, 551, 559, 560, 563, 564, 565, 590; 1901, 194, 199, 200, 209; 1902m, 529, 712 (*Opisthorchis*), 775–778, 781, 790 (amphitypic), 795, 805; 1905, —.—Luehe, 1899, 529, 532, 533; 1901, 474.—Mont., 1896, 168.—Odhn., 1902, 37 (*Opisthorchis*).—Ofenheim, 1900, 166.—Pratt, 1902, 888, 895.—Rail., 1896, 160; 1900, 212.—Stiles, 1901, 203, 204, 205.—Stiles & Hass., 1898a, 85, 91 (*Opisthorchis* erroneously as syn. of *Campula* Cobb.) (type *Dist. felineum*).—Stoss., 1902, 580.—Ward, 1901, 180; 1903, 869.
- 1896: *Prosthometra* Looss, 1896b, 58–60 (*felineus*).

OPISTHORCHIS—Continued.

- 1896: *Opisthorchis* Rail., 1896, Mar. 15, 160, misprint.
 1901: *Opisthorchic* Stiles, 1901h, 1539, misprint.
 1906: *Opiscorcus* Woolley, 1906, 1090, misprint.
albidus (Braun, 1893) Rail., 1896, 160.—Rail. & Marotel, 1898, 38 (compared with other forms).—Bossuat, 1902, v. 6 (2), 192.—Jacoby, 1900, 8 (situated in 16 times in 68 specimens, 23 per cent).—Kowal., 1898h, 131, 143, 147 (28, 40, 44) (in *Felis catus* dom.).—Luehe, 1899, 530.—Type of *Metorchis* 1899.
amphileuca (Looss, 1896) Kowal., 1898, 148 (45) (in *Naja haje*).
buski (Bl., 1888) R. Bl., 1895, 737 (syns.: *Dist. buski* Lankester, *D. crassum* Busk nec Sieb., *D. rathousi* Poir.); 1895, 217; 1900, 488.—Galli-Valerio, 1898a, 146.—Manson, 1903e, 664, fig. 107.—Type of *Fasciolopsis* 1899.
campula (Cobbold, 1876) Looss, 1899b, 559.
choledoca (Linst., 1883) Kowal., 1898h, 148 (45) (in *Anas* sp.).—Kamensky, 1900a, 5.
compascua Kowal., 1898, 72; 1898h, 133, 134 [30, 31], see *xanthosoma compascua*.
complexus (Stiles & Hass., 1894) Stiles & Hass., 1896, 155, or Rail., 1896, 160.—Galli-Valerio, 1898d, 146.—Kowal., 1898h, 143, 147 (40, 44) (in *Felis catus* dom.).
conjunctus (Cobbold, 1860) R. Bl., 1895, 217; 1895, 735; 1900, 488.—Bossuat, 1902, v. 6 (2), 191–192.—Braun, 1883, 65–66.—Clerc, 1907, 558 (*Opisthorchis*).—Kamensky, 1900a, 4.—Kowal., 1898h, 143, 147 (40, 44) (in *Homo*, *Canis vulpes fulvus*).—Manson, 1903e, 635 (= *Dist. conjunctum* of man).—Rail., 1896, 160.
conus (Crep., 1825) Stiles & Hass., 1895c, 156–158.—Rail. & Marotel, 1898, 38.
corvina (Stiles & Hass., 1894) Kowal., 1898, 143, 148 (40, 45) (in *Corvus americanus*, *C. ossifragus*).
corvinus (Stiles & Hass., 1894) Stoss., 1904, 12.
crassiuscula (Rud., 1809) Kowal., 1898g, 71, 73; 1898h, 130, 131, 143, 144, 147 (27, 28, 40, 41, 44) (in *Buteo vulgaris*, *Archibuteo lagopus*, *Haliaeetus albicilla*, *Circus rufus*, *Aquila imperialis*, *Surnia nyctea*).—Jacoby, 1899c, in 1–30; 1900, 7.—Looss, 1899b, 565, 678.—Luehe, 1899, 530.
crassiuscula janus Kowal., 1898h, 122–132, 147 [19–27, 44] figs. 15–21, 28 (in *Anas boschas* dom.); 1898g, 71.—Braun, 1902b, 9.—Looss, 1899b, 565, 566 (undoubtedly a *Metorchis*), 678.
crassiusculus Looss, 1899b, 678, see *crassiuscula*.
entzi Ratz, 1900, 534, in gall ducts of *Ardea purpurea*.
exigua (Mueh., 1898) Kowal., 1898h, 147 (44) (in *Circus rufus*).
felinea (Riv., 1884) Jacoby, 1899c, in 1–30.
felineus (Rivolta, 1884) R. Bl., 1895, 217; 1895, 734–735; 1900, 488.—Askanazy, 1900b, 493, 502 (in man); 1904, 689–691; 1904, Nov., 229–230.—Bossuat, 1902, v. 6 (2), 188.—Braun, 1903, 3 ed., 157 (syns.: *conus* Gurlt, *lanceolatum* Sieb., 1836 & Tright, *sibiricum*, *tenuicollis* Mueh., 1896) 159 (cases in man); 1906, 166; 1906, 163–166, figs. 95–98 (in *Limnaeus stagnalis*, *Felis domestica*, dog, fox, *Gulo borealis*).—Engler, 1904 (X. 21), 186–188, 1 fig. (abnormal intestine of); 1905, Jan. 1, 16; 1905 (II), 57.—Galli-Valerio, 1898d, 146; 1901c, 364 (in dog).—Hollack, 1902a, 868.—Jacoby, 1900, 7, 8–9.—de Jong, 1896a, 7 (*Opisthorchis*).—Kamensky, 1900a, 17, 19, 20, 24 (*felinea*).—Looss, 1899b, 675; 1905, 89 (syns.: *Dist. felineum*, *D. sibiricum*; in dogs and cats, Europe; in man by Winogradov in Tomsk, Siberia), 90; 1907, Feb. 1, 138, 139.—Stiles, 1902, 33.—Ward, 1903, 704; 1903, 864, 869 (syns.: *Dist. conus* Gurlt nec Crep., *D. lanceolatum* Sieb., 1836 & Tright, 1889 nec Mehlis, *D. sibiricum* Winogradoff, *D. tenuicollis* Mueh.), 871.
gemina (Looss, 1896) Kowal., 1898h, 129, 148 (26, 45) (in *Milvus parasiticus*).
geminus (Looss, 1896) Looss, 1899b, 676, 677, 678, figs. 2, 3; 1907, Feb. 1, 138, 139 (in *Anas boschas fera*, *Circus ærginosus*, *Milvus ægyptius*).—Braun, 1901b, 34.
interruptus Braun, 1901g, 897 (in *Alcedo viridirufa*, *Ardea virescens*; Brazil); 1902b, 5, 6, fig. 2.—Stoss., 1904, 11.
janus Kowal., 1898g, 71, 73; 1898h, 130, 131, 132, 133, 134, 137, 138, 139, 143, 144 (22, 26, 27, 28, 29, 30, 31, 34, 35, 36, 40, 41).—Jacoby, 1900, 7.—See also *crassiuscula janus*.

OPISTHORCHIS—Continued.

- lancea* (Dics., 1850) Braun, 1901, 897; 1902b, 6, 7.—Hollack, 1902a, 868.—Stoss., 1904, 11.
- longissimus* (Linst., 1883) Stiles & Hass., 1896, 155.—Kamensky, 1900a, 5.—Kowal., 1898g, 72; 1898h, 140, 141, 148 (37, 38, 45) (in *Botaurus stellaris*).—Looss, 1899b, 564, 674.—Stoss., 1904, 11.
- longissimus* var. *corvinus* (Stiles & Hassall, 1894) Looss, 1899b, 564, 675.—Hollack, 1902a, 868.—Stoss., 1904, 12.
- noverca* Braun, 1902, Dec. 30, 836; 1903, 3. ed., 164, fig. 112 (=Dist. *conjunctum* Lew. & Cunn., 1872 of man, renamed); 1906, 170–171, figs. 103–104.—Looss, 1905, 90–91, fig. 6 (syn. Dist. conj. L. & C.).—Stoss., 1904, 11.—Ward, 1903, 704; 1903, 864, 870.
- oblonga* (Cobbold, 1858) Kowal., 1898h, 148 (45) (in *Phocaena communis*, *Platanista gangetica*).
- pianæ* Galli-Valerio, 1898c, 7–8, 1 fig. (in *Anas boschas*; Busto Ariizio); 1898d, 145–146 (in *Anas boschas*); 1898e; 1898m, 923 (*Opisthorchis*); 1901c, 364; 1903d, 59 (*Opisthorchis*).—Kowal., 1898c, 751–752; 1898d, 751–752; 1898e, 923.—Stoss., 1899, 12.
- piscicola* Odhn., 1902, 152–153 (in *Gymnarchus niloticus*).—Stoss., 1904, 11.
- poturzyensis* Kowal., 1898g, 71 (var. of *simulans*), 72 (n. sp.), 73, 75, or 1898h, 138, 140, 141, 142, 143, 144, 148 (in *Anas boschas* dom.), 150, 163, figs. 23–26 (35, 36, 37, 38, 39, 40, 41, 47).—Engler, 1904, 186.—Jacoby, 1899c, in 1–30; 1900, 7.
- pseudofelineus* Ward, 1901, 180 (syn. *D. felineum* Riv. of Ward, 1895, 152–158); in 1903, 861, 862, 869.—Braun, 1903, 3. ed., 158.
- simulans* (Looss, 1896) Kowal., 1898g, 72; 1898h, 129, 137, 140, 141, 142, 148 (26, 37, 38, 39, 45) (in *Pernis apivoris*); 1902d, 23 (5) (in *Anas boschas* dom.).—Braun, 1901b, 34.—Looss, 1899b, 564, 566, 673–674, pl. 24, figs. 1–1b (includes var. *poturzyensis*).—Stoss., 1904, 11.—Also reported for *Anas penelope*, *Circus aeruginosus*, *Fulix cristata*).
- simulans* var. *poturzyensis* Kowal., 1898g, 71 (in *Anas boschas* dom.); 1898h, 135–142, 148 (32–37, 45), figs. 23–26 (in *Anas boschas* dom.).—Looss, 1899b, 565, 673, 674.
- sinensis* (Cobbold, 1875) R. Bl., 1895, 217; 1895, 736–737; 1900, 488; 1901b, 204, 209, 210; 1901c, 581, 586, 587, 588, 589.—Akanuma, 1894 (in Toyama Province).—Aoyama, 1891a.—Askanazy, 1904, 689; 1904 (XI), 229–230.—Bossuat, 1902, v. 6 (2), 189.—Braun, 1903, 3. ed., 161–162, figs. 109–111; 1906, 168–170, figs. 100–102.—Clerc, 1907, 558 (*Opisthorchis*).—Kamensky, 1900a, 4.—Kowal., 1898h, 147 (44) (in *Homo sapiens*; *Felis catus* dom.).—Looss, 1899b, 564; 1901, 209; 1905, 90, fig. 5 (syns. Dist. *sinense* Cobb., *D. spathulatum* Leuck., *D. hepatis innocuum*, *D. hepatis endemicum*, *D. hepatis perniciosum* Bætz, *D. japonicum* Bl.) (Japan, Annam, Tonkin, China, Korea); 1905m, 233; 1907, Feb. 1, 136–147.—Manson, 1903, 635.—Staf., 1905, Apr. 11, 694 (in liver of Chinaman, at Montreal, 1896).—Stiles & Garrison, 1906a, Aug., 29.—Stoss., 1904, 11.—Ward, 1903, 864, 867, 869–870 (syns. Dist. *sinense* Cobb., *D. spathulatum* Leuck. nec Rud., *D. hepatis endemicum* Bætz, *D. hepatis perniciosum* Bætz, *D. hepatis innocuum* Bætz, *D. japonicum* Bl., *D. endemicum* Ijima); 1903, 703, 704.—Woolley, 1906, 1090 (*Opiscorcus*).
- speciosus* Stiles & Hass., 1896, 151–155, figs. 1–2 (Dist. *longissimum* *corvinum* renamed).—See p. 74.
- tenuicollis* (Rud., 1819) Stiles & Hass., 1896, 155.—Braun, 1901e, 314.—Jacoby, 1900, 8.—Kamensky, 1900a, 1–23 (syn. *D. felineum* Riv.); 1900b, 23 pp.; 1901a, 323–324.—Kowal., 1898g, 73, 74; 1898h, 106, 129, 138, 139, 143, 144, 147 (1, 26, 35, 36, 40, 41, 44) (in *Homo*, *Felis catus* dom., *Canis familiaris*, *Gulo borealis*, *Phoca barbata*, *Halichoerus grypus*).—Looss, 1899b, 564, 566, 674–678, 700.—Odhn., 1905, 339.—Ratz, 1900, 532.—Stoss., 1904, 11.
- tenuicollis-felineus* Looss, 1899b, 678 (see *tenuicollis* and *felineus*).
- truncatus* (Rud., 1819) Rail., 1896, 160.—Bossuat, 1902, v. 6 (2), 192.—Galli-Valerio, 1898d, 146; 1901c, 364.—Jacoby, 1899c, in 1–30; 1900, 8.—de Jong, 1896a, 7 (*Opisthorchis*).—Kamensky, 1900a, 14 (*truncata*).—Kowal., 1898h, 143, 147 (40, 44) (in *Gulo borealis*, *Felis catus* dom., *Canis familiaris*, *C. vulpes*, *Phoca annelata*, *P. vitulina*).—Luehe, 1899, 530.

OPISTHORCHIS—Continued.

viverrini (Poir., 1886) Stiles & Hass., 1896, 155.—Kowal., 1898h, 148 (45) (in *Felis viverrinus*).—Poir., 1886, 27–29, pl. 3, figs. 1–3.—Stoss., 1892, 1893, 24; 1904, 11.

xanthosoma (Crep., 1846) Kowal., 1898g, 72; 1898h, 134, 147 (31, 44) (in *Podiceps minor*).

xanthosoma var. *compascua* Kowal., 1898g, 71 (in *Anas querquedula*); 1898h, 132–134, 147 (29–31, 44), figs. 22–29.—Braun, 1902b, 8 (syn. of *Dist. crassiusculum*).—Looss, 1899b, 565, 566 (says this is undoubtedly a *Metorchis*), 678.

OPISCORCUS Woolley, 1906, Oct. 6, 1090 (misprint for *Opisthorchis*).

OPISTHOTREMA Fischer, 1883a, 1–42 (m. cochleare).—Biehinger, 1888a, 231, 232, 233, 234.—Brand., 1892, 506.—Braun, 1892a, 569, 635, 640, 663, 664, 676, 677, 679, 683, 687, 693, 696, 699, 700, 711, 715, 716, 717, 718, 721, 725, 727, 728, 736; 1893a, 879, 886, 887, 890, 893, 895, 899, 914, 917, 918.—Darr, 1903, 657.—Gamb., 1896a, 73.—Jackson, 1888, 648.—Juel, 1889, 24.—Looss, 1885b, 56; 1894a, 180, 207; 1899b, 665.—Mont., 1888, 7, 15, 18, 32, 35, 37, 41, 42, 48, 50, 52, 53, 54, 56, 57, 58, 60, 64, 66, 67, 93, 106; 1892, Oct. 7, 214 (gen. of *Monostomidæ*); 1892, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 713; 1892, 37, 38; 1893, 25, 83, 144.—Ofenheim, 1900, 156.—Pratt, 1902, 890, 909.

1893: *Oposthotrema* Crety, 1893a, 384, misprint.

1902: *Opistotrema* Cohn, 1902k, 53, for *Opisthotrema*.

cochleare Fischer, 1883a, 1–42, 1 pl., 13 figs. (in *Halicore dugong*; Philippines); 1884a.—Bettend., 1897, 38; 1897, 342.—Biehinger, 1888a, 230.—Brand., 1891b, 265.—Braun, 1891d, 421; 1892a, 583, 589, 591, 593, 594, 595, 602, 604, 605, 607, 610, 628, 640, 659, 688, 703, 724, 731, 733, 762, 763, 764, 765; 1893a, 877, 917; 1893d, 468; 1901e, 344.—Cohn, 1902k, 53 (*Opistotrema*).—Crety, 1893a, 384 (*Oposthotrema*).—Darr, 1902, 648.—Juel, 1889, 37.—Kath., 1894a, 143.—Kowal., 1898h, 158 (55).—Linst., 1904u, 679, 680.—Looss, 1885b, 10, 12, 17, 56.—Maclaren, 1904b, 608.—Mont., 1888a, 7, 16, 21, 23, 26, 27, 43, 60; 1892, 99, 104; 1892, 688, 689, 695, 703, 712; 1893, 16, 109.—Ssinitzin, 1904, 768 (*Opistotrema*).—Reported also for *Manatus americanus*.

pulmonale Linst., 1904u, 678–680, figs. 1–2 (in *Halicore australis*; Torres-Strasse, Australia).—Odh., 1906, 66.

OPISTORCHIDÆ Jægers., 1903a, 15, for *Opisthorchiidæ*.OPISTORCHIS Rail., 1896, 160, see *Opisthorchis*.OPOSTHOTREMA Crety, 1893a, 384, for *Opisthotrema*.

ORCHIDASMA Looss, 1900, Dec. 3, 602 (*Anadasmus* Looss nec *Walsingham* renamed, hence type *amphiorchis*), τὸ δάσμα, die Verheilung; 1902m, 468.—Braun, 1901a, 20, 34.—Odh., 1905, 342.—Pratt, 1902, 888, 895.

amphiorchis (Braun, 1899) Braun, 1901b, 20–22, figs. 7, 11 (in *Thalassochelys corticata*; *Chelone mydas*; Triest).—Looss, 1901, 560, 562, 563; 1902m, 414, 416, 463–468, pl. 23, figs. 25–29, pl. 39, fig. 24.—Odh., 1905, 342.

ORCHIPEDEM Braun, 1901g, 944 (m. *tracheicola* Braun); 1902b, 15, 19, 20, 22, 23.—Pratt, 1902, 888 related to *Psilostominæ*, 897.

tracheicola Braun, 1901g, 943–944 (in *Anas fusca*; Vienna, Oct.); 1902b, 19, 20, 22, 23, figs. 14, 15 (syn. *Monost. flavum*).

OROPHOCOTYLE Looss, 1902c, 637–644, figs. 1–4 (tod. *planci*); 1902f, 400–401; 1905g, 54–55.

calyptrocotyle (Mont., 1893) Looss, 1902c, 644.

divergens Looss, 1902c, 640, 643, 644, fig. 1 (in *Ranzania truncata*; Triest).

foliata (Linst., 1898) Looss, 1902c, 644 (syn. *Dist. foliatum* Linst.).

planci (Stoss., 1899) Looss, 1902c, 637–641, figs. 2–4 (in *Ranzania truncata*; Triest).

ORTHOSPLANCHNUS Odhn., 1905, 330, 345, 346, 347, 348 (tod. *arcticus*).

arcticus Odhn., 1905, 339–343, 344, 348, pl. 3, figs. 1–5 (in *Phoca barbata*; west coast Spitzbergen).

fraterculus Odhn., 1905, 343–344, 348, pl. 3, fig. 6 (in *Phoca barbata*, *Odobenus rosmarus*; w. coast Spitzbergen).

OSTIOLUM Pratt, 1902a, 888 (*Haplometrinæ*), 900 (key to); 1903, 34–37 (m. *formosum* Pratt).

formosum Pratt, 1903, 34–37, pl. 4, figs. 6–8 (in frogs).—Staff., 1905, Apr. 11, 687 (in lungs of American frogs and toads; probably identical with *Pneumonæces medioplexus*).

OTIOTREMA Setti, 1897, 4-8, figs. 1-5 (m. torosum); 1897, in 198-247.—Braun, 1902b, 23.—Fuhrmann, 1904, 61.—Looss, 1899b, 551, 644-645, 741, 742, 743, 744, 745, 1901b, 208, 209, 210; 1902c, 642; 1902m, 813.—Luehe, 1901n, 481, 482, 486.—Odhn., 1905, 366.—Ofenheim, 1900, 183.—Pratt, 1902, 889, 905.—Stiles & Hass., 1898a, 91-92, 96 (type torosum).

torosum Setti, 1897, 4-8, pl. 8, figs. 1-5 (in *Squalus* sp.; Massaua).—Darr, 1902, 661.—Looss, 1899b, 645, 735, 736-746, figs. 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 69 (in *Squalus* sp.; Sawakin).—Luehe, 1901n, 481.—Odhn., 1905, 362.—Stiles & Hass., 1898a, 91, 96.

OTODISTOMUM Staff., 1904, May 3, 482-483 (m. *veliporum*) (Ὠτος= giant) (closely related to *Azygia*).

veliporum (Crep., 1837) Staff., 1904, May 3, 482-483, 488 (in *Raja laevis* Mit.; Canada).—Odhn., 1905, 310.

PACHYPSOLUS Looss, 1901l, 30. Oct., 558-560 (m. *lunatus* Looss, 1901, 558 = *D. irroratum* R.); 1902m, 497, 503, 504, 505.—Pratt, 1902, 888 (related to *Plagiiorchiinae*), 899.

irroratus (Rud., 1819) Looss, 1902m, 414, 416, 485-505 (includes *Dist. irroratum* Rud., 1819a, 393; Braun, 1899, 717; 1901, 36, figs. 27, 30, 32), 793, 871, 887, fig. A, pl. 23, figs. 37-38, pl. 32, fig. 169 (in *Thalassochelys corticata*, at Trieste; *Thalassochelys caretta* in New Guinea).—Odhn., 1905, 340.

lunatus Looss, 1901l, 558-560, 564 (in *Thalassochelys corticata*; Trieste); 1902m, 485, 486, 496, 497, 503 (syn. of *P. irroratus* Rud.).

PARABASCUS Looss, 1907, Mar. 5, 481-483 (tod. *lepidotus*).

lepidotus Looss, 1907, Mar. 5, 481-483, figs. 3a-b (in *Vesperugo kuhli*; Cairo, Egypt).

limatulus (Braun, 1900) [Looss, 1907, Mar. 5, 483, as probable].

semisquamosus (Braun, 1900) [Looss, 1907, Mar. 5, 483].

PARAGONIMIASIS, name of disease (see also distomatosis, pulmonary) Stiles & Hass., 1900a, 578-600.—Huber, 1896, 577.—Inoue, 1892, 13, 15; 1893a, 79-86; 1897a, 175-178 (brain); 1900, 1-23 (distomatosis pulmonum); 1900b, 515, 664, 739; 1903, 124, 125, 130.—Katsurada, 1900, 507.—Kurimoto, 1893d, 1-6, 1 fig.—Kurimoto & Ijima, 1892a, (718-720).—Looss, 1905, 81, 82, 83.—Manson, 1883, (Mar. 31), 532-534; 1894, 805.—Matsushima, 1895a, 10-17 (induratio hepatis).—Maxwell, 1899, 116-117, 2 figs.—Miura & Nakanishi, 1897, 20 Aug., 31-33.—Stiles, 1901b, 79-102.—Taylor, 1884, 44-54, figs. 1-5.—Winoue, 1892, Oct. 20, 13-16.—Winoue & Katsurada, 1892, Nov. 5, 15-21.—Zitsch. d. Tokio med. Gesellsch., 1892, v. 6 (6), Mar. 20, Art. 1.—IN BRAIN: Inoue, 1897a, 175-178.—Inoue & Katsurada, 1891, (17); 1892, v. 6 (6); 1893; 1902, v. 6 (21).—Jida, 1899, (1).—Taniguchi, 1904, Mar. 31, 237; 1904, Aug. 1, 156; 1904, Aug. 16, 350-351; 1904, v. 38 (1), 100-121, 2 pls.; 1904, 318-321; 1904, Dec. 3, 983; 1905, July 29, 508-509.—Yamagiwa, 1889, Sept. 20, 8; 1890, Mar. 5, 447-460, figs. 1-3; 1890, May 20, —; 1890, Sept. 5, 336-337.

—, LOCALITY: Ijima, 1893, v. 7 (16) (Yamanashi).—Katsurada, 1900d, 507 (mountainous regions).—Miura & Nakanishi, 1897a, 31-33.—Soma, 1893 (Japan).—Sons., 1884, v. 54 (7), 17-21 (Japan & Formosa).—Stiles & Hass., 1900a, 560-611; 1900b; 1900c, 3017-3027 (U. S.); 1901a, 45 (U. S.).—Yamagiwa, 1892, Mar. 5, 446-456 (Japan).

—, PATHOLOGY: Katsurada, 1899a, 8-29.—Katsurada, Fujiro & Fujiki, 1899a, 20 June, 1-18; 5 July, 2-29.—Magaziner, 1902, Apr., 296-302 (in man and lower animals).—Taniguchi, 1893, (794-795) (eye and testicle).—Wakabayashi, 1903, Apr. 20, 117 (orbit and lid).

—, SYMPTOMS: Huber, 1896a, 577.

—, TREATMENT: Katsurada, Fujiro & Saki, 1899a, 141-185.—Riusai, 1884, no. 307 (sulphurous acid).

—, IN MAN: Emerson, 1904, July-Aug., 263.—Stiles & Hass., 1900a; 1902f, 360; 1904c, 22.

—, IN SWINE: Stiles & Hass., 1900a, 560-611.

PARAGONIMUS Braun, 1899g, 492 (tod. *westermanii*) (also places here, *Dist. rude* Dies., *Dist. compactum* Cobbold); 1900h, 5, 6; 1901e, 329, 330; 1903, 3. ed., 154-155; 1906, 160.—Looss, 1900d, 605; 1902m, 813.—Luehe, 1900, 555, 557.—Pratt, 1902, 887 (related to *Fasciolinae*), 894.—Stiles, 1901, 183, 185.—Taniguchi, 1904, v. 38, — (in brain); 1904 (XII, 3), 938.—Ward, 1903, 867.

PARAGONIMUS—Continued.

1899: *Polysarcus* Looss, 1899b, 561 (tod. *westermanii*).

compactus (Cobbold, 1859) Braun, 1901, 334.

rudis (Dies., 1850) Stiles & Hass., 1900a, 604-605.—Braun, 1901e, 329, 332, pl. 20, figs. 12, 15-17.

westermani (Kerbert, 1881) Looss, 1905, 81, 82, fig. 1; 83, 84, figs. 2-3; 85, 86 (syns. *Dist. ringeri*, *D. pulmonale*, *D. pulmonum*) (see *westermanii*); 1905m, 280, 282, 283.

westermanii (Kerbert, 1878) Stiles & Hass., 1900a, 560-611, figs. 24-28, pls. 23-24, figs. 1-4; 1900b, 761-762 (*westermanni*); 1900c, 3017-3027; 1901a, Jan. 12, 45.—Anders, 1903, 6th ed., 1245-1246.—Braun, 1901e, 331, 332, 333, 334; 1903, 3. ed., 155, figs., 101-103; 1906, 160-163, figs. 92-94 (*westermani*) (in man, Royal tiger, dogs, pigs, cats; N. America).—Darr, 1902, 652, 687 (*westermanni*).—[Kellicott, 1894a, 123 (in dog; U. S. A.).]—Looss, 1905, 81, 82, 83, 84, 85, 86, figs. 1-3 (*westermanni*) (syns. *Dist. ringeri*, *D. pulmonale*, *D. pulmonum*), 117; 1905m, 280, 282, 283 (*westermani*).—Manson, 1903, 631, 632, 633-636, figs. 96, 97 (*westermanni*).—Miura, 1897, 31-33.—Ricketts, 1903, in 1204-1206.—Stiles, 1901b, 79-102 (*westermanii*); 1902, 45, 47; 1904i, 14-18, figs. 5-16.—Stiles & Garrison, 1906a, 29.—Strong, 1901, 44-45.—Ward, 1903, 703, 704; 1903, 863, 864, 867 (syns. *Dist. westermanii* Kerbert, 1878; *D. ringeri* Cobbold, 1880; *D. pulmonale* Baelz, 1883; *D. pulmonis* K., S., & Y., 1881 *Mesogonimus westermanii* Rail., 1890). 868.

westermanii (Leuck., 1889) Stiles, 1900, 762 (see *westermanii*).

PARAMPHISTOMIDE Fischder., 1901a, 367-375: 1901b, 634-636; 1902a, 59 pp., 4 figs. (syn. *Amphistomidae* Mont.); 1902b, 356; 1903h, 485-600, figs. a-q, pls. 20-31; 1903i; 1904, v. 20, 453-470; 1904, 278-279; 1904, 532-533; 1904, Feb. 18, 598-601; 1904, Mar. 3, 173; 1904, Mar. 10, 403; 1905, Jan. 31, 16; 1905, Jan. 16, 119; 1905, Jan., 120; 1905, July 3, 63.—Braun, 1903, 3. ed., 145, 146.—Luehe, 1901, 488.—MacCallum, 1905, 667.—Pratt, 1902, 887, 892 (includes: *Paramphistominae*, *Cladorchinae*).—Shipley, 1905, v. 6 (1), 4, 8.—Ward, 1903, 864 (*Gastrodiscus hominis*), 865 (see *Digenea*).

PARAMPHISTOMINÆ Fischder., 1901, 367; 1902a, 10 (subf. of *Paramphistomidae*); 1903h, 490, 492, 503.—MacCallum, 1905, 668.—Pratt, 1902, 887, 892 (syns. *Gastrothylax*, *Paramphist.*, *Stephanopharynx*).—Shipley, 1905, v. 6 (1), 8 (genera: *Paramphist.*, *Stephanopharynx*, *Gastrothylax*).

PARAMPHISTOMUM Fischder., 1901a, 367, 370, 372, 373, 374; 1902a, 7, 10-11, 24, 25, 26, 38, 43, 54 (tod. *cervi*); 1903h, 490, 491, 492 (key), 503; 1904, 173; 1904, 403; 1904, 453-470 (3 species); 1904 (X), 532-533.—Looss, 1902m, 438, 780, 835.—Pratt, 1902, 887, 892.—Shipley, 1905, v. 6 (1), 7, 8.

bathycothyle Fischder., 1903h, 542, for *bathycotyle*.

bathycotyle Fischder., 1901a, 368, 370 (in *Bos kerabau*); 1902a, 15, 16, 22 (in *B. k.*; Ceylon); 1903h, 492, 498 (in *B. k.*; Ceylon), 518-520, pl. 20, figs. 8-9, 542 (*bathycothyle*); 1904, 454, 455, 456, 457, 458.

bothriophoron (Braun, 1892) Fischder., 1901a, 370; 1902a, 21-22, 25, 29 (in Zebu; Madagascar); 1903h, 492, 496, 498, 538-541, figs. 24-28 (in *Bos taurus indicus*; Annanarivo, Madagascar), 544, 545, 546, 549, 550, 571.

calicophorum Fischder., 1901a, 370 (in *Bos taurus*; East Africa and Capland, Queensland, China); 1902a, 22-23 (in *Bos tau.*); 1903h, 492, 498 (in *Bos tau.*; East Africa, Capland, Queensland), 509 (in *Ovis aries?* or *Bos tau.*), 541, figs. e, 29-35, 549, 550, 575 (in *Bos tau.*); Canton. Fu-mui, China), 580; 1904, 459.—Linst., 1906, 175 (in *Bos indicus*).

cervi (Schrank, 1790) Fischder., 1901a, 368, 369; 1902a, 11-13, figs. 1, 14, 15, 20, 22, 26, 42 (includes *Festuc. cervi* Zed., 1790; *Monost. elaphi* Zed., 1800; *M. conicum* Zed., 1803; *Amphist. conicum* Rud., 1809) (in *Bos bubalus*, *B. taurus*, *B. urus*, *Cervus alces*, *C. dama*, *C. elaphus*, *Ovis aries*); 1903h, 492, 498 (in *Bos tau.*, *B. urus*=*Bison europæus*, *B. bubalus*; Egypt, ?Japan, ?N. Africa, ?Australia, ?India; *Cervus elaphus*, *C. alces*, *C. capreolus*, *C. dama*, *Capra hircus*; *Ovis aries*), 503, 504-515, fig. A, pl. 20, figs. 1-5 (syns. *Fasc. hepatica* Mueller, *Fest. cervi* Zed., *Fasc. cervi* Schrank, *F. elaphi* Gmelin, 1790; *Monost. elaphi* Zed., 1800; *M. conicum* Zed., 1803; *Amphist. conicum* Rud., 1809a, and of certain other authors), 530, 534, 535, 537, 539, 543, 565, 566, 590; 1904, 459, 460, 461, 462.—Braun, 1906, 142 (in *Bos taurus*).—Staff., 1905, Apr. 11, 693 (syn. *Amphist. conicum* Rud.) (in stomach of cattle; Canada).

PARAMPHISTOMUM—Continued.

- cotylophorum* Fischder., 1901a, 370 (in *Bos taurus*, Togo; *Bos zebu*, German East Africa); 1902a, 23 (in *B. t.*, Togo; *B. z.*, German E. Africa); 1903h, 492, 499 (in *Bos taurus*, *B. t. indicus*; East Africa), 546–551, figs. f, 36–39 (in *B. t.*, Togo, Misahöhe; *B. zebu*; Africa, Langenburg); 1904, 460, 463, 464, 465.
- dicranocœlium* Fischder., 1901a, 369 (in *Bos taurus indicus*; Coll. Berlin Vet. School); 1902a, 18–19, 23 (in *B. t. ind.*); 1903h, 492, 499 (in *B. t. ind.*), 528–531, fig. d, pl. 21, figs. 5–17 (in *B. t. ind.*), 533, 534, 547; 1904, 458, 464, 465, 467.
- epiclithum* Fischder., 1904, 458–463, pl. 15, figs. 4–6, fig. B (in *Bos taurus indicus*, *Buffelus indicus*; Saigon, Cochín China).
- explanatum* (Crep., 1847) Fischder., 1904, 454–458, pl. 15, figs. 1–3, fig. A (in *Bos taurus indicus*, *B. zebu*, *Buffelus indicus*).
- gracile* Fischder., 1901a, 368 (in *Bos kerabau* from Ceylon; *Portax tragocamelus*); 1902a, 16–17, 18–19 (in *B. k.*, Ceylon; *Portax trag.*); 1903h, 492, 499 (in *B. k.*, Ceylon, *Por. trag.*), 520–524, fig. B, pl. 21, figs. 10–11, 532, 535.—Linst., 1906, 175.
- liorchis* Fischder., 1901a, 368 (in *Cervus simplicicornis*, *C. campestris*, *C. mexicanus*, *C. rufus*, *C. dichotomus*, *C. namby*; Brazil); 1902a, 13–14 (syn. *Amphist. conicum* Dies. e. p.); 1903h, 492, 499, 515–518, pl. 20, figs. 6–7 (in same hosts).
- microbothorium* Fischder., 1902a, 21 (for *microbothrium*).
- microbothrium* Fischder., 1901a, 369 (in *Antelope dorcas*; Coll. Vien. and Coll. Berl. Vet. School); 1902a, 20–21 (*microbothorium*); 1903h, 492, 499, 535–538, pl. 22, figs. 21–23 (in *Antelope dorcas*), 539, 540, 541, 542.
- orthocœlium* Fischder., 1901a, 369 (in *Bos kerabau*); 1902a, 17–18, 19, 20 (in *Bos kerabau*; Ceylon); 1903h, 492, 499, 524–528, fig. C, pl. 21, figs. 12–14 (in *Bos kerabau*; Ceylon, Königsberg i. Pr.), 529, 530, 531, 532, 534; 1904, 467.
- scoliocœlium* Fischder., 1904, 459, 463–468, pl. 16, figs. 7–11, fig. C (in *Buffelus indicus*, in Cochín China and Annam; *Bos taurus*, at Annam).
- strephocœlium* Fischder., 1902a, 19–20, 25, 50 (in *Bos kerabau*; Ceylon) for *streptocœlium*.
- streptocœlium* Fischder., 1901a, 369 (in *Bos kerabau*; from Ceylon); 1903h, 492, 499, 531–534, pl. 21, fig. 18, pl. 22, figs. 19–20 (in *Bos ker.*), 537, 539, 540; 1904, 465.
- PARORCHIS Nicoll, 1907, 128, *Zeugorchis* Nicoll, 1906, not Staff., 1905, renamed, hence type *acanthus*.
- PATAGIUM Heymann, 1905, 82, 90 (m. *brachydelphium*).
- brachydelphium* Heymann, 1905, 81, 82–89, pl. 6, figs. 1–3 (in *Dermatemys mavi* Gray; Coll. Königsberg i. Pr.).
- PECTOBOTHRIA Braun, 1893b, 188, for *Pectobothrii*.
- PECTOBOTHRII Burm., 1837a, 530; 1856a, 243, 251.—Braun, 1890a, 515, 516; 1893b, 188 (*Pectobothria*).—Mont., 1888a, 83.—Tasch., 1879, 233.
- PEDICELLINÆ Mont., 1888a, 88.
- PEGOSOMUM Ratz, 1903, v. 1, 417–432, 1 pl. (type by present designation *saginaturnum*), Fasciolidæ.
- asperum* (Wright, 1879) Ratz, 1903, 423–424, 431–432 (in *Botaurus minor*).
- saginaturnum* (Ratz, 1898) Ratz, 1903, 419–421, 427–429, pl. 16, figs. 2, 4 (in *Ardea alba*; Hungary).
- spiniferum* Ratz, 1903, 422–423, 429–431, pl. 16, figs. 1, 3 (in *Botaurus stellaris*; Hungary).
- PETRATHYRUS Cobbold, 1860a, 42, for *Tetrathyrus*.
- obesus* (Crep., 1851) Cobbold, 1860a, 42, renamed *Monost. gurltii*.
- PEUDOCOTYLE Tasch., 1879, 65, apparently for *Pseudocotyle*.
- PHACUS Nitzsch, 1827, 69, contains *Cerc. pleuronectes*, *C. tenax*.
- PHANEROPSOLUS Looss, 1899b, 608–609, 611, 612, 633 (tod. *sigmoideus*) *φανερóς*=visible; *ὁ ψωλός*=penis); 1902m, 822, 823.—Braun, 1900, 234; 1901, 948; 1901e, 311, 313; 1901, 567.—Pratt, 1902, 889, 903, 904.
- longipenis* Looss, 1899b, 608, 714–715, fig. 35 (in ape, gen. et sp. undetermined; Gizeh Zool. Garden); 1902m, 823.—Braun, 1901e, 311, 313.

PHANEROPSOLUS—Continued.

- micrococcus* (Rud., 1819) Braun, 1901, 567; 1902b, 41, 49, 62, 64, fig. 40 (syns. Dist. mi. Rud., 1819; Dies., 1850a; D. (Brachylaimus) mi. Stoss., 1892).
- orbicularis* (Dies., 1850) Braun, 1901e, 348, pl. 20, fig. 14.
- oviformis* (Poir., 1886) Looss, 1899b, 609.
- sigmoideus* Looss, 1899b, 608, 712-713, 714, fig. 31 (in *Passer dom.* at Alexandria; *Caprimulgus europæus* at Cairo); 1902m, 823, 824 (probably = Dist. *micrococcus* Rud., see Braun).—Braun, 1901e, 311, 313; 1901, 567; 1902b, 63, 64.—Staff., 1905, Apr. 11, 693.
- PHASCIOLA Wilder, 1894 (for Fasc.).—Stiles & Hass., 1895a, 89, 92 (syn. of Fasc.).
- PHILOPHTHALMINE Looss, 1899b, 586-587; 1902m, 839.—Braun, 1902b, 31.—Luehe, 1901, 488.—Odhn., 1905, 314.—Pratt, 1902, 888, 898 (includes: *Philophthalmus*, *Pygorchis*).—Shipley & Hornell, 1904, 95.
- PHILOPHTHALMUS Looss, 1899b, 587 (tod. *palpebrarum*).—Braun, 1902b, 31, 32.—Ofenheim, 1900, 182.—Pratt, 1902, 888, 898.
- lachrymosus* and *lacrymosus* Braun, 1902b, 31, 37 (Dist. *lucipetum* Braun p. p. in *Larus maculipennis*; Brazil).—Looss, 1907, Mar. 5, 480.
- lucipetus* (Rud., 1819) Looss, 1899b, 587, 701, 702; 1907, Mar. 5, 480.—Braun, 1902b, 32, figs. 21-23 (syns. Dist. *lucipetum* Rud., 1819a; Brem., 1824; Dies., 1850; Braun, 1897; D. (Dicrocoelium) luc. Duj., 1845; Stoss.)
- nocturnus* Looss, 1907, Mar. 5, 479-480, fig. 2 (in *Athene noctua*; Egypt).
- palpebrarum* Looss, 1899b, 587, 701-702, fig. 24 (in *Corvus cornix* at Cairo; *Milvus parasiticus*); 1901, 205; 1907, Mar. 5, 479, 480 (in *Athene noctua*; Egypt).—Braun, 1902b, 31, 32, 37.
- PHYLLINE Abildg., 1790, 31 (syns. *Tænia laticeps* Pallas, *Caryophyllus* Gæze, Fasc. *fimbriata* Gæze).—Audouin, 1828a, 454-455.—Baer, 1827b, 674.—Baird, 1853a, 97 (=Caryophyllæus mutabilis Rud.).—Ben., 1858a, 1861a, 12, 19, 20.—Ben. & Hesse, 1864, 67 (of Oken, syn. of *Nitzschia elegans*).—R. Bl., 1888, 130 (of Oken, = trematode).—Braun, 1890a, 515, 518, 527.—Burm., 1856a, 251.—Dies., 1850a, 290, 426 (of Oken, syns. *Hirudo* Mueller, *Epibdella* Blainv., Trist. Rathke), 428 (of Oken, syn. of Trist.), 445 (of Oken, syn. of *Malacobdella*), 577 (of Abildg., syn. of *Caryophyllæus*), 578 (of Abildg., syn. of C. mutab.); 1858e, 313, 363 (of Oken, mentions only *hippoglossi*); 1859c, 437.—Fabricius, 1794, 30.—Goldb., 1855a, 20.—Johnston, 1865, 32.—Mont., 1888a, 84, 87; 1902, 138, 143; 1905, 75, 76.—Nitzsch, 1826, 150.—Odhn., 1905, 371 (of Oken, type is *diodontis*=Trist. *maculatum*).—Rud., 1809a, 24.—Stoss., 1898, 6 (of Oken).—Tasch., 1878, 563, 566 (syn. of Trist. *maculatum*=*Capsala martinieri*).
- 1891: Phyllinic Sons., 1891, 262, for Phylline.
- bumpusii* (Lint., 1900) Linst., 1903, 355.
- caligi* Kroyer.—Ben., 1858a, 1861a, 13 (syn. of *Udonella caligarum* Johnston).
- coccinea* (Cuvier, 1817) Schweigger, 1820, 474.—Dies., 1850, 429 (syn. of Trist. *rudolphianum*).—Johnston, 1865, 33.—Stoss., 1898, 5.—Tasch., 1878, 567 (*coccinea*) (syn. of T. *molæ*).
- coccinea* Tasch., 1878, 567 (for *coccinea*).
- diadema* (Mont., 1902) Linst., 1903, 355.
- diodontis* Oken, 1817, 182, 370, pl. 10, fig. 3 (based on Martinière, 1787a, 207-208, figs. 4-5, on *Diodon* sp.; Norka to Monterey, Cal.).—Des., 1850a, 430 (syn. of Trist. *maculatum* Rud.).—Nitzsch, 1826, 150.—Odhn., 1905, 371.—Tasch., 1878, 567 (syn. of Trist. *mac.* Rud.).
- grossa* (Mueller, 1788) Johnston, 1865a, 35.—Dies., 1850a, 445 (to *Malacobdella*).—Leidy, 1852, 209 (= *Malacobdella grossa* Blainv.).
- hendorffii* Linst., 1889e, 163-180, pls. 10-11 (anatomy) (on *Coryphæna hippurus*; *Caleta buena*, Chile); 1893f, 170-172.—Braun, 1890a, 421, 426.—Mont., 1891, 126.
- hippoglossi* (Mueller, 1776) Oken, 1815.—Ben., 1858a, 1861a, 21 (to *Epibdella*).—Ben. & Hesse, 1864, 69 (to *Epibdella*).—Dies., 1850a, 426-427 (syns. *Epibdella hipp.* Blainv., *Hirudo hipp.* Mueller, Trist. *hamatum* Rathke); 1858e, 363; 1859c, 437 (in *Hippoglossus vulgaris*; Belgium).—Johnston, 1865a, 32; —, 431, pl. 15, figs. 1-3.—Kœlliker, 1849, 21.—Linst., 1903, 355.—Moq.-Tandon, —, 392.—Nord., 18—, 526.—Odhn., 1905, 370 (to *Epibdella*), 371.—Tasch., 1878, 564, 565, 568 (to Trist.).—Thompson, —, 482.—Reported also for *Hippoglossus gigas*, H. *maximus*.

PHYLLINE—Continued.

- monticellii* Par. & Perugia, 1895, 2.—St.-Remy, 1898, 534 (to *Epibdella*).—Stoss., 1898, 7 (in *Mugil auratus*; Trieste).
scianæ (Ben., 1856) Sons., 1891, 263 (in *Sciana umbra*, *Umbrina cirrhosa*), 262 (Phyllinic).—Linst., 1889a, 76 (syn. of *Benedenia elegans*).
soleæ (Ben. & Hesse, 1863) Linst., 1903, 355.
squamula (Heath, 1902) Linst., 1903, 355.

PHYLLOCOTYLE Ben. & Hesse, 1863, 1864, 96, 103 (m. *gurnardi*).—Braun, 1890a, 413, 477, 516, 517, 523, 534, 536, 546; 1893a, 890.—Cerf., 1895h, 918; 1896, 514.—Gamb., 1896a, 73.—Hoyle, 1890, 539.—Mont., 1888a, 7, 8, 11, 66, 67, 86, 89, 100; 1892, Oct. 7, 213 (g. of *Octocotylinæ*); 1903, 336 (subf. *Plectanocotylinæ*); 1905, 76, 77, 78.—Pratt, 1900, 651 (on gills of marine fishes), 656, fig. 29.—Scott, T., 1901, 147.—Tasch., 1879, 69; 1879, 239, 247.
gurnardi Ben. & Hesse, 1863; 1864, 103–104, pl. 10, figs. 1–7 (in *Trigla gurnardus*).—Braun, 1890a, 418, 536, 548.—Mont., 1888a, 8, 13, 16; 1905, 76.—Pratt, 1900, 656, fig. 29; 657.—Scott, 1901, 147–148, pl. 8, fig. 23 (in *Trigla gurnardus*); 1905, 115–116, pl. 6, figs. 19–20 (in *Trigla gurnardus*); 1905, 116 (of Scott, 1901, 147, pl. 8, fig. 23) (syn. of *Plectanocotyle lorenzii*).—Tasch., 1879, 247 (in *Trigla gurnardus*).

PHYLLODISTOMUM Braun, 1899g, 492 (tod. folium) (Braun also places here: *D. cygnoides* Zed., after Looss, 1894, 23; *D. cymbiforme* Rud.; *D. patellare* Sturg.); 1901b, 9–10.—Looss, 1900d, 605; 1901b, 202, 203, 204, 207 (*Gorgoderinæ*; folium. *patellare*); 1901l, 557, 558; 1902m, 476, 477, 478, 479, 480, 515, 795, 797, 813, 814, 824, 827, 844, 847, 856, 857, 858, 859, 860, fig. 3; 861, 862 (*Gorgoderinæ*).—Odhn., 1901, 64, 65, 66, 67; 1902, 37; 1902, 64, 65, 66.—Pratt, 1902, 888, 900, 901.—Stiles, 1901, 183, 185.—See also *Rhopalocerca*.
 1899: *Spathidium* Looss, 1899b, 605 (folium) [not Duj., 1841].

acceptum Looss, 1901b, 203 (in bladder of *Crenilabrus pavo*, *C. griseus* at Trieste); 1901d, 404–405, fig. 4; 1902m, 480, 782, 798, 844, 857.—Odhn., 1901, 66; 1902, 66.

americanum Osborn, 1903, 252–258, figs. 1–4 (in *Amblystoma punctatum*; Minnesota); 1903, 532–533 (in *A. tigrinum* Green; Minnesota).

conostomum (Olss., 1876) Looss, 1902m, 857.

cymbiforme (Rud., 1819) [Braun, 1899, 492] Luehe, 1900, 564; 1901b, 10–13, fig. 1.—Looss, 1902m, 469 (to *Plesiochorus*, type).

folium (Olfers, 1816) Braun, [1899, 492:] 1901, 947; 1902b, 146.—Looss, 1901, 202; 1902m, 480, 782, 797, 798, 827, 857, 862.—Luehe, 1901, 54.—Osborn, 1903, 252, 254, 255; 1903, 533.—Ssnitzin, 1905, 75, 101, 108; 1906, 683 (near *Warschau*), 684 (in *Cottus gobio*, *Dreissena polymorpha*), 685 (to *Gorgoderina*).—Staff., 1904, May 3, 492 (in bladder of *Esox lucius*; Canada).

linguale Odhn., 1902, 66 (in *Gymnarchus niloticus*; Omdurman, Sudan).—Looss, 1902m, 480, 857, 861.

patellare (Sturges, 1897) [Braun, 1899, 492].—Looss, 1901b, 202; 1902m, 480, 844, 857.—Osborn, 1903, 252, 254, 255; 1903, 533.

spatula Odhn., 1902, 66–67 (in *Bagrus docmac*, *B. bayad*; Omdurman, Sudan).—Looss, 1902m, 480, 861 (type of *Catoptroides*).—Osborn, 1903, 254; 1903, 533.

spatulæforme Odhn., 1902, 67–68 (in *Malapterurus electricus*; Omdurman, Africa).—Looss, 1902m, 480, 861 (to *Catoptroides*).

superbum Staff., 1904, 492 (in *Ameiurus nebulosus*, *Perca flavescens*; Canada; fish probably brought to Montreal).

unicum Odhn., 1902, 66 (in *Serranus* sp.; Tor in Sinai, Red Sea).—Looss, 1902m, 480, 857, 861.—Osborn, 1903, 255; 1903, 533.

PHYLLONELLA Ben. & Hesse, 1863; 1864, 65, 66, 70–71 (m. *soleæ*).—Braun, 1890a, 412, 414, 469, 471, 475, 490, 498, 511, 516, 517, 519, 523, 526, 527.—Gamb., 1896a, 73.—Massa, 1906, 43.—Mont., 1888a, 7, 10, 13, 20, 66, 86, 87, 97; 1892, Oct. 7, 172, 213 (syn. of *Epibdella*); 1899, 98; 1902, 139 (*Phyllonella*), 140, 142; 1903, 335 (= *Epibdella*).—Pratt, 1900, 848.—Tasch., 1878, 566 (syn. of *Trist.*) (*Phyllonella*).—Scott, T., 1901, 142.

1878: *Phylonella* Lorenz, 1878a, 434.

hippoglossi (Mueller, 1776) Goto, 1899, 264–269, pl. 20, figs. 1–7.—Linst., 1903, 280.—Mont., 1902, 140; 1905, 75, to (*Epibdella*).

PHYLLONELLA—Continued.

soleæ Ben. & Hesse, 1863; 1864, 70–71, pl. 5, figs. 1–8 (in *Solea vulgaris*).—Braun, 1890a, 409, 418, 424, 446, 465, 475, 512, 519, 528, 547, 552.—Cunningham, 1890a, 93–96, figs. C–D.—Goto, 1899, 266.—Lorenz, 1878a, 434.—Mont., 1892, 106, 115, 124, 125, 126 (to *Epibdella*); 1902, 139 (to *Epibdella*).—Pratt, 1900, 655, 657, fig. 6.—Scott, 1901, 142–143, pl. 8, fig. 17 (in *S. v.*; Clyde River); 1901, 344 (in *Solea vulgaris*; Irish Sea); 1905, 118 (in Scott, 1901, pl. 8).—Tasch., 1878, 564, 568 (*Phylonella*) (to Trist.).

PHYLONELLA Lorenz, 1878a, 434, for *Phyllonella*.

PINTNERIA Poche, 1907, Jan. 4, 125, *Hoploterisma* Cohn, 1893, not *Michaelis*, renamed, hence type *mesocelium*.

PLACOPLECTANUM Dies., 1858e, 315, 384 (*Discocotyle*, 1850, renamed, hence type *sagittatum*; also type by first species rule and because it is the only positive species).—Braun, 1890a, 518.—Tasch., 1879, 239.

hirundinaceum (Bartels, 1834) Dies., 1858e, 384, to (*Discocotyle*).

leptogaster (Leuck., 1830) Dies., 1858e, 384 to (*Discocotyle*).—Tasch., 1879, 245 (to *Octobothrium*).

sagittatum (Leuck., 1842) Dies., 1858e, 384.—Tasch., 1879, 244 (to *Octobothrium*).—Linst., 1879 (reported for *Catostomus teres*).

PLACUNELLA Ben. & Hesse, 1863; 1864, 65, 66, 71–74 (*pini* type by page precedence).—Braun, 1890a, 411, 412, 415, 469, 498, 511, 516, 517, 519, 523, 526, 528; 1891d, 422.—Gamb., 1896a, 73.—Massa, 1903, 252; 1906, 43, 44, 51 (syn. of *Trochopus*), 58 (*Ptacunella*).—Mont., 1888a, 7, 10, 11, 13, 52, 66, 86, 87, 97; 1891, 104, 105, 107, 111; 1899, 98; 1903, 335 (= *Trochopus*).—Par. & Perugia, 1890, 13.—Par. & Mont., 1902, Dec., 46.—Pratt, 1900, 646, 648.—St.-Remy, 1898, 534.—Scott, T., 1901, 143.—Stoss., 1898, 7–8.—Tasch., 1878, 566 (syn. of Trist. Cuv.).

1906: *Ptacunella* Massa, 1906, 58, misprint.

exacantha Mont., 1891, 104, for *hexacantha*.

hexacantha Par. & Perugia, 1889, 740–741, fig. 1 (in *Serranus gigas*; Genova); 1890, 740–741, fig. 1: 1890, 5; 1894, 594.—Braun, 1890a, 418, 528, 547, 552.—Massa, 1906, 47, 59 (to *Trochopus*).—Mont., 1891, 1892g, 104, pl. 6, fig. 31 (*exacantha*).—Par., 1899, 3; 1902, 2 (in *S. g.*; Elba).

pini Ben. & Hesse, 1863; 1864, 72, 73, pl. 5, figs. 9–18 (in *Trigla pini*).—Braun, 1890a, 418, 465, 528, 547, 552.—Par. & Perugia, 1889, 740; 1890, 740; 1890, 5; 1899, 3.—Massa, 1906, 57 (to *Trochopus*), 64 (of Scott, 1901, 344) (syn. of *Trochopus diplocanthus* Massa).—Mont., 1888a, 11.—Par., 1902, 2 (in *Trigla hirundo*; Elba).—Pratt, 1900, 655, 657, fig. 8.—Scott, 1901, 344–345, 1 fig. (in *Trigla hirundo*; Irish Sea); 1901, 143 (in *Trigla pini*).—Tasch., 1878, 564–685 (to Trist.).

rhombi Ben. & Hesse, 1863; 1864, 73–74, pl. 6, figs. 1–7 (in *Rhombus maximus*).—Braun, 1890a, 412, 419, 465, 528, 547, 551.—Massa, 1906, 58 (to *Trochopus*).—Mont., 1888a, 11.—Tasch., 1878, 564, 568 (to Trist.).

vallei Par. & Perugia, 1895, (3) (in *Naucrates ductor*; Genova).—Looss, 1902m, 746.—Massa, 1903, 252; 1906, 44.—St.-Remy, 1898, 534.—Stoss., 1898, 8 (in *Naucrates ductor*; Trist.).—Type of *Ancyrocotyle* 1903.

PLACUNELLE Par. & Perugia, 1889, 740; 1890, 740.

PLAGIOPELTINÆ Mont., 1903, 336 (subf. of *Octocotyliidæ*).

PLAGIOPELTIS Dies., 1850a, 289, 416–417 (m. *duplicata*); 1858e, 314, 368–369.—Ben. & Hesse, 1864, 84.—Braun, 1890a, 518, 546.—Cerf., 1895h, 920; 1896, 515.—Goldb., 1855a, 19.—Mont., 1903, 336 (syn. of *Hexacotyle*)—Tasch., 1879, 249 (syn. of *Hexacotyle* Blainv.).—See *Hexacotyla*.

duplicata (Rud., 1819) Dies., 1850a, 417 (includes *Polyst. thynni* Delaroché, 1811; *Hexacotyla thynni* Blainv.); 1858e, 369 (in *Thynnus brachypterus*; Balearic Isles, Vindobonæ).—Tasch., 1879, 250 (syn. of *Hexacotyle thynni* (Delaroché)).

thynni (Delaroché, 1811) Braun, 1891d, 421.

PLAGIOPORUS Staff., 1904, May 3, 493–494 (m. *serotinus*); *πλάγιος*, oblique; *πόρος*, pore.

serotinus Staff., 1904, May 3, 493–494 (in *Moxostoma macrolepidotum* L. S.; Canada).

PLAGIORCHIDÆ Luehe, 1901, 173; 1901, 486, 487.—Looss, 1902m, 839, 840 (includes: Lepodermatinae Looss, Brachycoeliinae Looss, Pleurogenetinae Looss, also Prynoprion, Haplometra, Pneumonæces (=Hæmatolæchus), Saphedera (=Macrodera), Opisthogonimus Luehe, Anchitrema, Dist. mutabile, Dicrocoeliinae).

PLAGIORCHIINÆ Pratt, 1902, 888, 898 (includes: Opisthioglyphe, Plagiorchis; related genera: Glossidium, Enodiotrema, Pachypsolus).

PLAGIORCHINÆ Luehe, 1901, 173.

PLAGIORCHIS Luehe, 1899k, 531, 532, 533, 534 (tld. *D. lima*): 1900, 558; 1901, 487 (*lima* designated type).—Braun, 1901b, 56, 58; 1901i, 56, 58; 1901, 563, 564, 567, 568; 1902b, 37, 40, 41, 42, 43, 46, 47, 49, 50, 53, 54, 94, 125 (syn. *Lepoderma* Looss, 1899).—Looss, 1900, 607; 1901b, 207; 1902m, 813, 824; 1907, Mar. 5, 483.—Pratt, 1902a, 888, 899.—Staff., 1905, Apr. 11, 691.—Stoss., 1904, Feb. 11, 1-2, 1 pl., 1 fig.; 1905, 31 Jan., 24.—(See also *Dist. cirratum*, *D. lima*, *mentulatum*, and probably *D. erraticum*, *D. ramliannum*, *D. reniforme* (=unicum[=renifera]), *D. horridum* Leidy, possibly *didelphidis*).

asperus Stoss., 1904, 1-2, 1 pl., 1 fig. (in intest. ten. of *Plecotus auritus*; Grisi-gnana, Istria).

cirratu (Rud., 1802) Luehe, 1899, 530.—Braun, 1901, 564, 566; 1902b, 43, 46, 47, 50 (syns.: *Fasc. cirrhata* Rud., 1802, 66; *Dist. cirr. Rud.*, 1809a, 376; 1819a, 100; Dies., 1850a, 350; Mueh., 1896, 262; *Dist. (Brachylaimus) cirratum* Duj., 1845a, 413; Stoss., 1892, 11).—Staff., 1905, Apr. 11, 693.

didelphidis (Par., 1896) Stoss., 1904, table (in *Didelphis marsupialis*; Paraguay).

elegans (Rud., 1802) Braun, 1902b, 38, 42, 43, 46, 47, 50 (syns.: *Fasc. elegans* Rud., 1802, 65; *Dist. elegans* Rud., 1809a, 375; 1819a, 100; Crep., 1829, 59; Dies., 1850a, 349; *Dist. (Brachylaimus) elegans* Stoss., 1892, 11, as syn. of *D. cirratum*; Duj., 1845a, 414; *D. erraticum* Linst., 1894, 335; *D. elegans* Rud. = *D. cirratum* Rud., Mueh., 1896; 589).—Stoss., 1904, table (in *Uccelli insettivori diversi*; Europe).

horridus (Leidy, 1850) Stoss., 1904, table (in *Boa*, India; *Python*, America).

[*lima* (Rud., 1809) Luehe, 1899k, 930-931.]

maculosus (Rud., 1802) Braun, 1901, 943; 1902b, 45, 46, 47, 54, 93, 94, figs. 27, 28 (syns.: *Fasc. hirundinis* Frölich?, 1791, 75; *Dist. hirundinis* Zed., 1800a, 169; *Fasc. maculosa* Rud., 1802, 67; *Dist. maculosum* Rud., 1809a, 374; Duj., 1845a, 412; Dies., 1850a, 349; *D. maculosum* = *P. maculosum* Braun, 1901, 566; *D. (Dicrocoelium) maculosum* Olss., 1876, 14; *D. (Brachylaimus) maculosum* Stoss., 1892, 11; *D. crassum* Olss., 1876, 25 nec Siebold).—Kowal., 1902d, 27 [9] (*maculosa*); 1904, 25 [10] (in *Hirundo rustica*; Dublany).

mentulatus (Rud., 1819) Stoss., 1904, table (in *Tropidonotus*, *Lacerta*, *Podarcis*; Europe).

nanus (Rud., 1802) Braun, 1901, 567; 1902b, 47, 50, figs. 29, 30 (syns.: *Fasc. nana* Rud., 1802, 68; *Dist. nanum* Rud., 1809a, 376; 1819a, 101; Duj., 1845a, 446; Dies., 1850a, 350; Stoss., 1892, 41).—Stoss., 1904, table (in *Glareola*, *Scolopax*; Greifswald).

pernix Braun, 1901, 943 (in *Hirundo rustica*; Coll. Vienna); 1902b, 46, 54, figs. 33, 34.—Stoss., 1904, table (in *rondine*; Vienna).

ramliannus (Looss, 1896) Stoss., 1904, table (in *Cameleonte*; Egitto).—Type of *Lepoderma*, 1899.

sauromates (Poir., 1886) Stoss., 1904, table (in *Elaphis*).

triangularis (Dies., 1850) Braun, 1901, 568; 1902b, 51, figs. 32, 33 (syns.: *Dist. triangulare* Dies., 1850a, 351; Stoss., 1892, 44; *D. (Brachylaimus) meropis* Par., 1896, 5; *Megacetes triangularis* Looss, 1899, 725).—Stoss., 1904, table (in *Merops apiaster*; Vienna).

vespertilionis (Mueller, 1784) Braun, 1900, 217-220, 228, 230, pl. 10, figs. 1-2.—Staff., 1905, April 11, 693 (syn. *Dist. lima*; in *Vespertilio subtilis* Say; Canada).—Stoss., 1904, 1, table (in *Chiroterti diversi*; Europa centrale).

vitellatus (Linst., 1875) Braun, 1901, 943 (in *Actitis hypoleucis*); 1902b, 50, 51, fig. 31 (syns.: *Dist. vitellatum* Linst., 1875, 189; *D. (Brachylaimus) vitellatum* Stoss., 1892, 12).—Stoss., 1904, table (in *Actitis hypoleucis*; Ratzeburg).

PLANARIA Mueller, 1776 (worm); 1780, 210; Göze, 1782a (trematode); Brown, 1827 (mollusk); Lea, 1833 (mollusk). [The early literature on *Planaria* is rather confused, containing references to turbellaria, trematodes, and mollusks. The name is now confined to the fresh-water turbellarian group *Pla-*

PLANARIA—Continued.

- nariidæ. The list of species given below contains all the specific (trematode and others) names which we have thus far had occasion to index. We have not worked out the type species, except for Gœze, 1782.]
- of Braun, — Dies., 1850a, 412 (syn. of Polyst.).—Tasch., 1879, 251 (syn. of Polyst.).
- of Gœze, 1782a, 41, 168–179, a genus or “Geschlecht” containing among others *Fasc. hepatica*, hence takes this as type; Gœze divides *Planaria* into 4 “Gattungen”: *Latiuscula*, *Teres* seu *Cylindrica*, *Alata* seu *Dubia*, *Subclavata*.—Abildg., 1790a, 36 (syn. of Dist.); 1794, 58.—Brand., 1888a, 8.—Braun, 1893a, 883, 884, 893, 894, 902, 908.—Crep., 1837, 309.—Dies., 1850a, 307 (syn. of Hemist.), 312 (syn. of Holost.), 318 (syn. of *Diplodiscus*), 331 (of authors, syn. of Dist.), 388 (of Gœze, 1782a, 177, pl. 16, syn. of Dist. *ferox*).—Lamouroux, 1824a, 559 (syn. of Dist.).—Nitzsch, 1819, 397.—Rafinesque, 1815, 151 (syn. of *Monostomeus* Raf.).—Rud., 1809a, 22.—Stiles, 1901, 180.—Stiles & Hass., 1898a, 88, 92 (syn. of *Fasc.*).
- of Linn.—Bosc, 1802a, v. 1, 248–254.
- fresh water.—Knapper, 1865a, 39 pp., 2 pls.; 1866a, 271–272.
- land.—Kennel, 1878a, 26–29 (Dorpat).—Mosley, 1874, 132 (Ceylon).
- marine.—Collinwood, 1876a, 83–98, pls. 17–19 (31 species).—Gœtte, 1878a, 75–76.—Keferstein, 1869a, 3–38, pls. 1–3 (St. Malo).—Kirk, 1882, 267–268.—Monti, 1900, 1–16, 2 pls. (regeneration).—Quatrefages, 1845, 129–184.
- miscellaneous.—Agassiz, 1866, 306–309.—Baer, 1826a, 126; 1827b, 1828d, 183–187 (of Dugès).—Bardeen, 1902, 262–288, 12 figs. (embryology, regenerative development); 1903, 1–20, 18 figs. (heteromorphosis).—Bory de St. Vincent, 1828b, 11.—Calkins, 1901b, 12 (of Agassiz).—Curtis, 1905, July 4, 169–175, 2 figs. (location of pharynx in embryo); 1905, 855–856.—Cuvier, 1817, 43.—Dalyell, 1814a.—Dugès, 1828a, 139–183, pls. 4–5 (planariées); 1830a, 169–183; 1830b, 72–90, figs. 1–26; 1833b, 619–625, figs. 1–26.—Fabricius, 1794, 20; (1798a), 52–66, pl. 2.—Faraday, 1832a, 723–724; 1833a, 183–185; 1834a, 994.—Fischer, 1799, 96.—Geddes, 1880a, 51–58; 1880b, 99–100.—Gerstfeldt, 1859a, 261–263.—Girard, 1850a, 398–402; 1850b, 300–308; 1851a; 1851b; 1854a (from Carolina).—Graber, 1879a, 278 (ameboid epithelium).—Grube, 1872a, 273–292, pls. 11–12 (from Baikal).—Herbst, 1787a, 33, 36, 94.—Houghton, 1867a, 300–301 (n. sp.); 1870a, 255–257, figs. 1–2 (2 sp. from Borneo).—Hoyle, 1890, 49.—Johnson, 1822a, 437–447, figs. 1–17; 1825b, 247–256, pl. 16, figs. 1–11; 1833b, 177–178; 1883c, 238.—Kœlliker, 1846a, 291–295, figs. 1–13.—Lamarck, 1801a, 330.—Lankester, 1890, 835–836.—Lawson, 1861a; 1861b.—Leidy, 1847e, 252 (2 sp.); 1848a, 78–79.—Leuck., 1863, 154.—Morgan, 1904, 502–505.—Pallas, 1781a, 59.—Rathke, 1799, 82; 1799, 147, pl. 2, figs. 7–8.—Ryder, 1882, 48–51, figs. 1–10 (parasitic on *Limulus*).—Sabussow, 1904, 1–28.—Schneider, 1866, 11.—Slawikowski, 1819, 56.—Thienemann, 1906, 499–504.
- alata* Gœze, 1782a, 176–177, pl. 14, figs. 11–13 (t. h. the fox).—Brand., 1888a, 60 (to Hemist.).—Dies., 1850a, 307–308 (to Hemist.).—Nitzsch, 1819, 399 (to Holost.).—Rud., 1809a, 402 (to Dist.).—Ward, 1895, 341 (to Hemist; in *Canis familiaris*).
- alpina* (Dana).—Collin, 1891b, 177–180; 1891c, 177–180.—Borelli, 1905, 4 pp.—Brand., 1900, 303–304.—Fredericq, 1905, 199–200; 1905 (X. 18), 597 (in Belgium).
- angulata* (Mueller, 1774) Fabricius, 1798, 53–58, pl. 11, figs. 1–7.—Bosc, 1802a, v. 1, 256.—Herbst, 1787a, 34.
- ardeæ* (Gmelin, 1790) Rud., 1809a, 432 (see Dist. *ardeæ stellaris* Rud.).
- atomata* Bosc, 1802a, v. 1, 260.
- auriculata* Bosc, 1802a, v. 1, 261.
- badia* Rathke, 1799, 147, pl. 3, figs. 9, a–b.
- bicornis* Bosc, 1802a, v. 1, 257.
- bilis* Braun, 1790a, 61, pl. 3, figs. 4–5 (in *Falco melanaëtus*; Germany); 1792, 61, pl. 3, figs. 4–5.—Braun, 1901f, 561.—Dies., 1850a, 376 (syn. of Dist. *crassiusculum*).—Gmelin, 1790a, 3054 (to *Fasc.*).—Rud., 1809a, 408 (=Dist. *crassiusculum* Rud.).
- brunnea* (Mueller, 1774) — —, 1776.—Fabricius, 1798, 64–66, pl. 11, figs. 13–15.—Bosc, 1802a, v. 1, 255 (*brunea*).—Herbst, 1787a, 33.

PLANARIA—Continued.

- candida* (Mueller, 1774) — —, 1776.—Fabricius, 1798, 62-64, pl. 11, figs. 11-12.—Bosc, 1802a, v. 1, 262.—Herbst, 1787a, 35.
- capitata* Bosc, 1802a, v. 1, 261 (for *capitata*?), in Baltic Sea.
- capitata* (Mueller, 1774) — —, 1776.—Herbst, 1787a, 35.
- carnea* Rathke, 1799, 83, 147, pl. 3, figs. 10 a-b.
- caudata* (Mueller, 1774) Bosc, 1802a, v. 1, 261.—Herbst, 1787a, 35.
- cavatica* Fries, — —, 151-153.
- ciliata* (Mueller, 1774) — —, 1776.—Bosc, 1802a, v. 1, 255.—Herbst, 1787a, 34.
- cornuta* Mueller, 1776a, 221.—Bosc, 1802a, v. 1, 260.—Herbst, 1787a, 34.
- crenata* (Mueller, 1774) — —, 1776.—Bosc, 1802a, v. 1, 259.—Herbst, 1787a, 34.
- cylindrica* Goeze, 1782, 173: *P. teres* s. *cylindrica*, 174 (syn. of *cylindraceum*) (in frogs).—Dies., 1850a, 368 (syn. of *Dist. cylindraceum*).—Looss, 1894a, 64 (syn. of *Dist. cylindraceum*).—Rud., 1809a, 393.
- dubia* Goeze, 1782a, 177 (= *P. alata*).
- ehrenbergii* Focke, 1836a, 191-206, pl. 17, figs. 1-19.
- festæ* Borelli, 1898, 6 pp., 2 figs., var. *albolineata*.
- filaria* Bosc, 1802a, v. 1, 261.
- flaccida* (Mueller, 1774) — —, 1776.—Bosc, 1802a, v. 1, 256.—Herbst, 1787a, 34.
- fulva* Bosc, 1802a, v. 1, 257-258.
- fusca* Fabricius, 1798, 58 (syn. *Fasc. angulata* Mueller); 1799, 151.—Bosc, 1802a, v. 1, 258.
- fuscescens* Fabricius, 1798, 58-62, pl. 11, figs. 8-10; 1799, 151.
- gesserensis* Bosc, 1802a, v. 1, 262.
- glauca* (Mueller, 1774) Herbst, 1787a, 43.—Bosc, 1802a, v. 1, 258.
- gonocephala* Ackermann, 1905, 137-139, 4 figs.
- grisea* Bosc, 1802a, v. 1, 257.
- grossa* (Mueller, 1774) — —, 1776.—Bosc, 1802a, v. 1, 260.—Herbst, 1787a, v. 1, 35.
- gulo* (Mueller, 1774) — —, 1776.—Bosc, 1802a, v. 1, 255.—Herbst, 1787a, 34.
- helluo* (Mueller, 1774) Herbst, 1787a, 35.—Bosc, 1802a, v. 1, 259.
- hirudo* Johnston, 1846a, 437, pl. 15, fig. 3.—Dies., 1850a, 473.
- ignorata* Raspail, 1902, 119-123.
- inquilina* Graff, 1904, 457 (in *Schnecken*).
- insignis* Graff, 1904, 457 (in *Schnecken*).
- intestinalis* Mueller.—Abildg., 1790, 34 (syn. of *Fasc.*).
- lactea* (Mueller, 1774) Herbst, 1787a, 34.—Baer, 1826a, 126.—Bosc, 1802a, v. 1, 258-259.—Nord., 1832a, 69.—Tasch., 1879, 36.
- lagna* Braun, 1788a, 257, pl. 10, figs. 1-3.—Dies., 1850a, 380 (syn. of *Dist. nodulosum*).—Gmelin, 1790a, 3057 (to *Fasc.*).—Looss, 1894a, 33 (syn. of *D. nod.*).—Rud., 1809a, 410, 412 (syn. of *D. nod.*).
- latiuscula* Goeze, 1782a, 169, 171.—Anacker, 1892c, 94.—Dies., 1850a, 333 (syn. of *Dist. lanceolatum*), 385 (syn. of *D. echinocephalum* Rud.).—Dunglison, 1893, 875.—Macé, 1882, 25.—Rud., 1809a, 353 (= *Fasc. hepatica*), 429 (= *Dist. falconis milvi* Rud.).—Stiles & Hass., 1898a, 88.—Stiles, 1898a, 29.—Ward, 1895, 246 (syn. of *Fasc. hep.*).
- laurentiana* Borelli, 1897, 4 pp., 1 fig.
- limuli* Graff (1879), 202-205.
- linearis* (Mueller, 1774) Herbst, 1787a, 35.—Bosc, 1802a, v. 1, 260.—Rathke, 1799, 83, 147, pl. 3, fig. 11.
- lincata* (Mueller, 1774) — —, 1776.—Bosc, 1802a, v. 1, 258.—Herbst, 1787a, 34.
- lingua* Bosc, 1802a, v. 1, 262.
- littoralis* Herbst, 1787a, 35.
- lucii* (Mueller, 1776) Goeze, 1782a, 172, pl. 14, fig. 3.—Ben., 1858a, 1861a, 100 (syn. of *D. teret.*).—Dies., 1850a, 358 (syn. of *Dist. tereticolle*).—Looss, 1894a, 5 (syn. of *D. teret.*).—Rud., 1809a, 380.—Sramek, 1901, 105 (syn. of *D. teret.*).
- lugubris* Morgan, 1901, 179-212, 14 figs; 1902, 132-139, 24 figs.

PLANARIA—Continued.

- maculata* Leidy, 1847c, 252; 1851b (free; Philadelphia); 1904a, 11, 54 (maculta).—Bardeen, 1901, 351-352 (regeneration).—Curtis, 1900, 56-59, 9 figs. (anat., development of reproductive organs); 1901, 357-359 (asexual reprod.); 1902, 515-559, 11 pls. (biol., reprod. organs).—Morgan, 1898-1900, 364-397, 41 figs.; 1904, 683-695, 1 fig.—Thacher, 1902, v. 36, 633-641; 1903, 24 Feb., 115-116.
- maculata* Leidy, 1904a, 54, for *maculata*.
- marmorata* Bosc, 1802a, v. 1, 262 (free form).
- marmorosa* (Mueller, 1774) Herbst, 1787a, 35.
- melis* [Goeze, 1782a, 176, pl. 14, figs. 9-10, Planaria in Dachs, March].—Dies., 1850a, 381 (syn. of *Dist. trigonocephalum*).—Rud., 1809a, 415.
- midæ* (= *mydæ* renamed?) Dies., 1850a, 325 (syn. of *Monost. trigonocephalum*).—Braun, 1901b, 42.
- montenigrina* Mrazek, 1904a, 43 pp., 2 pls., 2 figs.; Montenegro.
- mutabilis* Eichwald, —, 78, pl. 9, fig. 16.—Dies., 1850a, 649.
- mydæ* Braun in Rud., 1809a, 336 (= *Monost. (Monost.) trigonocephalum* Rud., 1809).
- nigra* (Mueller, 1774) Herbst, 1787a, 33.—Bosc, 1802a, v. 1, 255.—Chiaje, 1837a, 14.
- notulata* Bosc, 1802a, v. 1, 254-255, pl. 8, figs. 7-8.
- obscura* (Mueller, 1774) —, 1776.—Bosc, 1802a, v. 1, 259.—Herbst, 1787a, 35.
- operculata* Herbst, 1787a, 36.—Bosc, 1802a, v. 1, 256.
- polychroa* Tasch., 1879, 36.
- punctata* (Mueller, 1774) Herbst, 1787a, 34 [6], 35.—Bosc, 1802a, v. 1, 255.
- pusilla* Braun, 1790a, 63-65, pl. 3, figs. 6-7 (in *Erinaceus europæus*; Europe).—Dies., 1850a, 360 (to *Dist.*).—Gmelin, 1790a, 3055 (to *Fasc.*).—Rudolphi, 1809a, 384.
- pusio* Eichwald, —, 79, pl. 9, fig. 17.—Dies., 1850a, 648.
- putorii* Gmelin, 1790a, 3053.—Dies., 1850a, 381 (syn. of *Dist. trigonocephalum*).—[Goeze, 1782a, 175, pl. 14, figs. 7-8].—Nord., 1840, 621 (syn. of *Fasc. trigonocephala*).—Rud., 1809a, 415.
- quadrangulata* Bosc, 1802a, v. 1, 257.
- radiata* (Mueller, 1774) —, 1776.—Bosc, 1802a, v. 1, 260.—Herbst, 1787a, 35.
- rosea* (Mueller, 1774) Herbst, 1787a, 34.—Bosc, 1802a, v. 1, 256.—Lamarck, 1801a, 330.
- rostrata* (Mueller, 1774) —, 1776.—Bosc, 1802a, v. 1, 259.—Herbst, 1787a, 35.
- rubra* (Mueller, 1774) —, 1776.—Bosc, 1802a, v. 1, 256.—Herbst, 1787a, 34.
- rutilans* Bosc, 1802a, v. 1, 258.
- schlosseri* Graff, 1904, 457 (in *Botryllus schlosseri*).
- simplicissima* Morgan, 1904, 385-393, 20 figs.—Stevens, 1904, 208-220, 4 pls.
- simplicissima* Curtis, 1900a, 10 Apr., 447-466, pls. 31-32, figs. 1-14 (reproductive system); 1900b.
- stagnalis* (Mueller, 1774) —, 1776.—Bosc, 1802a, v. 1, 255.—Herbst, 1787a, 33.
- striata* Herbst, 1787a, 34.
- strigata* (Mueller, 1774) —, 1776.—Bosc, 1802a, v. 1, 260.—Herbst, 1787a, 35.
- strigis* (Schränk, 1788).—Fischder., 1901, 367; 1902a, 7 (= *Holost. macrocephalum*), type of *Strigea*; 1903h, 490.
- subclavata* Goeze, 1782a, 178-179, pl. 15, figs. 2-3 (t. h. *Rana*, intestine; Europe) (restricted from *Fasc. subclavata*, ore sessile, Pallas).—Ben., 1858a, 1861a, 81, 82 (to *Amphist.*).—Dies., 1850a, 318 (to *Diplodiscus*).—Nitzsch, 1819, 398 (to *Amphist.*).—Nord., 1840, 627 (to *Amphist.*).—Olfers, 1816, 45.—Rud., 1809a, 348 (to *Amphist.*).
- subulata* Herbst, 1787a, 36.—Bosc, 1802a, v. 1, 257.
- tentaculata* (Mueller, 1774) —, 1776.—Baer, 1826a, 126.—Bosc, 1802a, v. 1, 259.—Herbst, 1787a, 34.
- teres* seu *cylindrica* Goeze, 1782a, 173.—Linst., 1905, 191.—Looss, 1899b, 680.
- teres duplici poro* Goeze, 1782a, 173.—Baird, 1853a, 55 (= *Dist. trigonocephalum*).

PLANARIA—Continued.

- teres poro simplici* Goeze, 1782a, 173, 174, pl. 14, figs. 4-6.—Baird, 1853a, 47, 55 (=Holost. macrocephalum).—Dies., 1850a, 312 (syn. of Holost. variabile), 383 (syn. of D. echinatum).—Rud., 1809a, 340, 418.
- terrestris* (Mueller, 1774) —, 1776.—Bosc, 1802a, v. 1, 261.—Carrière, 1879a, 29 Dec., 668.—Herbst, 1787a, 35.—Jenyns, 1869a, 25.—Lubbock, 1868a, 193-195 (in England).
- tetragona* (Mueller, 1774) —, 1776.—Bosc, 1802a, v. 1, 261.—Herbst, 1787a, 35.—Mueller, —, v. 3, 42 (=Fasc. tetragona) (free form).
- torva* (Mueller, 1774) Herbst, 1787a, 34.—Baer, 1826a, 126.—Ben., 1858a, 1861a, 198.—Bosc, 1802a, v. 1, 259, pl. 8, fig. 9.—Flexner, 1898, 337-346, 1 pl. (regeneration of nervous syst.).—Mont., 1888a, 44.
- tremellaris* (Mueller, 1774) —, 1776.—Herbst, 1787a, 35.
- trimellaris* Bosc, 1802a, v. 1, 262.
- truncata* Bosc, 1802a, v. 1, 262.
- truncata* Leidy, 1851 (free form; Newark, Del.): 1904a, 54.
- uncinulata* Braun, 1790a, 58-61, pl. 3, figs. 1-3 (in Rana esculenta; Germany).—Dies., 1850a, 412 (syn. of Polyst. integerrimum).—Gmelin, 1790a, 3056 (to Fasc.).—Rud., 1809a, 451.—Stoss., 1898, 10.
- unionicola* Graff, 1904, 457 (in Muscheln).
- velellæ* Graff, 1904, 456.
- ventricosa* Bosc, 1802a, v. 1, 257.
- vespertilionis* (Mueller, 1784).—Dies., 1850a, 387 (of Goeze, 1782a, 171, pl. 14, f. 1-2, syn. of Distomum lima).—Kolenati, 1857, 12.—Rud., 1809a, 427.
- viridata* Bosc, 1802a, v. 1, 258.
- viridis* Bosc, 1802a, v. 1, 256.—Herbst, 1787a, 34.

PLANARIADÆ Mell, 1903, 191-236, 3 pls., 4 figs. (of madagassischen Subregion).

PLANARIÆ Fabricius, 1799, 151.—Blainv., 1828a, 577 (fam.).—Darwin, 1844a, 14 Oct., 241-251, pl. 5, figs. 1-4.—Faraday, 1832a, 11 Feb., 723-724; 1833a, Jan., 183-185; 1834a, 994.—de Férussac, 1821a, 90-92, pl. 116 (sp. in Brazil).—Girard, 1850a, 398-402 (embryology); 1851a, 258-273; 1851b, Jan., 41-53.—Houghton, 1870a, Sept., 255-257, figs. 1-2 (from Borneo).

PLANARIIDÆ Pease, 1860, 37-38 (of Sandwich Islands).

PLATYASPIS Mont., 1892, Oct. 7, 205 (m. lenoiri).—Braun, 1893a, 888, 890, 891, 894, 896, 897, 917; 1893b, 188.—Gamb., 1896a, 73.—Kofoid, 1899a, 181, 182, 183, 184.—Looss, 1902m, 428, 429.—Nickerson, 1902, 613, 615.—Pratt, 1902, 887, 891.—Stoss., 1899, 4.

anodontæ Osborn, 1898, 416 (in Unio luteolus, Anodonta; Lake Chautauqua, N. Y.).—Kofoid, 1899a, 179-186 (identity with Cotylaspis insignis); 1899b.

lenoiri (Poir., 1886) Mont., 1892, Oct. 7, 205-206 (in Tetrathyra vaillanti; Senegal).—Braun, 1893a, 897.—Looss, 1902m, 418, 428, 429, 783.—Nickerson, 1902, 613.

PLATYCOTYLE Ben. & Hesse, 1863; 1864, 96, 108 (m. gurnardi).—Braun, 1890a, 413, 498, 516, 517, 523, 534, 537, 546; 1893a, 890.—Cerf., 1895h, 918; 1896, 514.—Gamb., 1896a, 73.—Hoyle, 1890, 539.—Mont., 1888a, 8, 11, 86, 89, 100.—Pratt, 1900, 646, 651, 656, fig. 27.—Tasch., 1879, 69; 1879, 239, 248.

gurnardi Tasch., 1879, 248, for gurnardi.

gurnardi Ben. & Hesse, 1863, 108; 1864, 108-109, pl. 11, figs. 14-15 (in Trigla gurnardus).—Braun, 1890a, 418; 469, 537, 548, 552.—Pratt, 1900, 656, 657, fig. 27.—Tasch., 1879, 248 (guanardi, in Trigla gu[r]nardus).

PLECTANOCOTYLE Dies., 1850a, 289, 420-421, 425 (m. elliptica).—Braun, 1890a, 413, 415, 516, 517, 523, 534, 537, 546; 1893a, 890.—Gamb., 1896a, 73.—Goldb., 1855, 19.—Hoyle, 1890, 539 (on gills of Labrax mucronatus).—Mont., 1888a, 11, 89, 100; 1892, Oct. 7, 213 (Octocotylinæ); 1899c, 1045-1053, figs. 1-12; 1903, 336 (subf. Plectanocotylinæ); 1905, 76-78.—Pratt, 1900, 646, 651, 656, fig. 30; 661 (on gills of marine fishes).—Tasch., 1879, 69 (of Ben. & Hesse); 1879, 239, 250 (syn. Plectanophorus).

1858t: Plectanophorus Dies., 1858, 315, 382 (m. ellipticus).

PLECTANOCOTYLE—Continued.

elliptica Dies., 1850a, 421 (t. h. *Labrax mucronatus*; loc. not given); 18—, 69, pl. 1, figs. 4–9; 1858e, 382 (to *Plectanophorus*).—Braun, 1890a, 408, 537, 548, 551.—Mont., 1905, 76.—Pratt, 1900, 656, fig. 30; 657, 661.—Tasch., 1879, 250 (in *Labrax mucronatus*).

lorenzii Mont., 1899, 1, 1 pl.; 1899c, 1045–1053, figs. 1–12 (on *Trigla* sp.; Rovigno); 1905, 76, 78.—Scott, 1905, 116 (syn. *Phyllocotyle gurnardi*) (in *Trigla* sp.).

nordmanni (Dies., 1850) Braun, 1890a, 418.—Type of *Encocyllabe*.

PLECTANOCOTYLINÆ Mont., 1903, 336 (f. *Hexacotylidæ*).

PLECTANOPHORA Dies., 1858.—Ben. & Hesse, 1864, 120.—Mont., 1888a, 84.

PLECTANOPHORUS Dies., 1858e, 315, 382 (m. *ellipticus*; *Plectanocotyle* renamed); 1859c, 443.—Tasch., 1879, 250 (syn. of *Plectanocotyle* Dies.).

ellipticus (Dies., 1850) Dies., 1858e, 382 (in *Labrax mucronatus*), type of *Plectanocotyle* 1850.—Tasch., 1879, 250 (to *Plectanocotyle*).

PLECTOBOTHRII Nord., 1840, 596.

PLEORCHIS Rail., 1896, Mar. 15, 160 (for *Polyorchis* Stoss., 1892 [not Agassiz, 1862, *cœlenterate*]; type *polyorchis*).—Pratt, 1902, 887 (related to *Fasciolinæ*), 893.—Stiles & Hass., 1898a, 92, 97 (syns.: *Dist.* (*Polyorchis*) Stoss., *Polyorchis* Stoss.) (type *polyorchis*).—Stoss., 1898, 30.

cygnoides (Zed., 1800) Stoss., 1898, 31 (in *Bombinator igneus*; Triest).

mollis (Leidy, 1856) Stiles, 1896, 213.

polyorchis (Stoss., 1889) Stiles, 1896, 205.—Stoss., 1898, 30–31 (in *Corvina nigra*; Triest).

urocotyle Par., 1899, 6, 1 fig. (in *Scorpæna scrofa*; Portoferrajo); 1902, 5 (in *Scorpæna porcus*; Portoferrajo; *S. scrofa*; Elba).—Braun, 1902b, 23.—Odhn., 1905, 364.

PLESIOCHORUS Looss, 1901b, 205 (m. *cymbiformis*); ὁ πλεσιόχωρος, Grenznachbar; 1901, 557, 558; 1902m, 478, 479, 480, 481, 482, 483, 484, 485, 526, 814, 844, 857 (*Anaporrhutinae*), 858, 859, 860, 861, 863, fig. iv.—Odhn., 1901, 65, 67; 1902, 65, 67.—Pratt, 1902, 888, 901.

cymbiformis (Rud., 1819) Looss, 1901b, [205], 207, 209; 1901, 557, 558; 1902m, 414, 415, 417, 469–476 (includes *Dist. cymbiformis* Rud., 1819, 371; Sons., 1893, 2; Stoss., 1895, 38, pl. 4, fig. 1; Braun, 1899, 729; Looss, 1899b, 605; Phyllodist. *cymbiforme* (Rud.) Braun, 1901, 1, pl. 1, fig. 1), 479, 480, 482, 788, 791 (amphitype very common), 813, 814, 844, 857, 863, 870, pl. 23, figs. 30–36.—Odhn., 1902, 68.—Reported for *Chelone mydas*, *Thalassochelys corticata*.

PLEUROCOTYLE *a* Gerv. & Ben., 1859b, 194 (based upon Grube, 1855a, 137) (m. *scombr*).—Ben. & Hesse, 1864, 96.—Brand., 1898a, [17] 209.—Braun, 1890a, 413, 414, 462, 477, 516, 517, 523, 534, 535, 546; 1893a, 890.—Cerf., 1895h, 918; 1896, 514.—Dies., 1859c, 444 (syn. of *Grubea* Dies.).—Gamb., 1896, 73.—Hoyle, 1890, 539.—Mont., 1888a, 8, 11, 48, 84, 89, 99; 1892, Oct. 7, 213 (subg. in *Octocotylinae*); 1903, 336 (*Pleurocotylinae*).—Pratt, 1900, 646, 651, 656, fig. 28.—Tasch., 1879, 69; 1879, 239, 248 (syns.: *Octobothrium* ? Grube, *Tetracotyle* Grube, *Grubea* Dies.).—Ziegler, 1883, 552.—See *Grubea*.

scombr (of Grube, 1855) [Gerv. & Ben., 1859b, 194, does not use combination, based on Troschel's Arch., 1855, 137].—Ben. & Hesse, 1863, 100; 1864, 100 (syns.: *Octobothrium scombr* Grube, *Grubea scombr*) (in Maquereau).—Braun, 1890a, 407, 414, 418, 462, 518, 535, 548, 552.—Knoch, 1894a, 11, 12.—Lang, 1880.—Mont., 1888a, 48, 49.—Par., 1894, 549, 595, 671, 680; 1902, 3 (in *Scomber colias*, *S. scombr*, *S. sp.*; Portoferrajo).—Par. & Perugia, 1890, 7.—Pratt, 1900, 656, 657, fig. 28.—Scott, 1901, 147.—Tasch., 1878, 575–577; 1879, 35; 1879, 248–249 (syns.: *Octobothrium* sc. Nord., *Tetracotyle* sc. Grube, *Grubea cochlear* Dies.) (in *Scomber scombrus*, *S. colias*, Naples).

PLEUROCOTYLIDÆ Mont., 1903, 336 (subf. *Pleurocotylinae*, g. *Pleurocotyle*).

PLEUROCOTYLINÆ Mont., 1903, 336 (f. *Pleurocotylidæ*).

PLEUROGENES Looss, 1896b, 97 (tod. *claviger*) (πλευρά=side; γεννάω=procreate); 1899b, 614, 615, 616–617, 622, 623; 1901, 194; 1902m, 820, 838.—Luehe, 1899, 536; 1900, 509.—Pratt, 1902, 889, 902.—Staff., 1905, Apr. 11, 683, 684.—Stiles, 1901, [183] (*Pleuronectes*, *lapsus calami*), 185.—Stoss., 1899, 7, 10.

^a Gervais & Ben. use both *Pleurocotyle* and *Pleurocotylus*, but they evidently intended the former as a French vernacular name, the latter as the Latin scientific name. Later authors apparently overlooked this fact.

PLEUROGENES—Continued.

- arcanum* (Nickerson, 1900) Pratt, 1902, 959.—Klein, 1905, 13 (*arcana*); 1905, 71 (*arcanus*).—Staff., 1905, 683 (type of *Loxogenes*).
- betencourti* (Mont., 1893) Stoss., 1899, 10 (in *Scyllium canicula*, S. *stellare*; Boulogne).—Looss, 1899b, 622.
- brusinae* (Stoss., 1889, 25) Stoss., 1899, 10 (in *Oblata melanura*; Trieste).—Looss, 1899, 622.—Type of *Diphtherostomum*, 1904.
- claviger* (Rud., 1819) Looss, 1899b, 569, 617; 1902m, 787, 820.—Klein, 1905, 11, 13, 17; 1905, 69.—Kowal., 1902d, [9] 27 (syns.: Dist. cl. Rud., D. *neglectum* Linst.); 1904, [7] 22.—Luehe, 1901, 171; 1901, 57.—Odhn., 1900, 17.—Ssinitzin, 1905, 146.—Staff., 1905, Apr. 11, 684 (type).
- confusus* (Looss, 1894) Klein, 1905, 68; 1905, 10, 11, 12, 13, 17.
- gastroporus* Luehe, 1901p, 166–171 (in *Rana cyanophlyctis* Schneider; India).—Klein, 1905, 10, 11, 13, 14; 1905, 68, 69.—Staff., 1905, Apr. 11, 684.
- glaviger* Ssinitzin, 1906, 687 (for *claviger*).
- medians* (Olss., 1876) Klein, 1905, 10, 11, 12, 13, 14, 17, 18; 1905, 68.—Looss, 1899b, 617; 1902m, 820, 824.—Luehe, 1901, 57; 1901, 171.—Odhn., 1900, 17.—Ssinitzin, 1905, 145–146; 1906, 687 (in *Agrian* and beetle larvæ; Warschau). Staff., 1905, Apr. 11, 683 (syn. of *Loxogenes arcanum*), 684, 685.—Stoss., 1900, 7–8, fig. 12 (in *Rana esculenta*; Trieste); 1900, 17.
- sphaericus* Klein, 1905, 68–72, pl. 5, figs. 4–5 (in *Rana hexadactyla*; Königsberg, from India); 1905, 10–14, pl. 1, fig. 5.
- tacapense* (“Sons., 1894” of Looss, 1896) Stoss., 1899, 10 (= *Prosoctococcus tener* [tacapense was a misdetermination]) (in *camaleonte*; Tunisia; Alessandria).
- tacapensis* (Sons., 1894) Looss, 1899b, 622.
- tener* (Looss, 1898) Looss, 1898, 461; 1899b, 622.—Klein, 1905, 10, 11, 12, 13; 1905, 68.

PLEUROGENETINÆ Looss, 1899b, 615, 623; 1902m, 839.—Luehe, 1900, 561; 1901, 171.—Odhn., 1902, 38, 42; 1902, 40.—Pratt, 1902, 889, 902 (includes: *Prosoctococcus*, *Pleurogenes*, *Gymnophallus*, *Lepidophyllum*).—Stoss., 1904, 198.—Ward, 1901, 185.

PLEUROGONINÆ Braun, 1900a, 1664, 1674.

PLEUROGONIUS Looss, 1901l, 567, 568, 569 (tod. *longiusculus*); 1902m, 417, 557, 564, 569, 570 (type *longiusculus*), 572, 579, 583, 588, 589, 591, 594, 595, 596, 597, 599, 603, 609, 610, 612–616.—Pratt, 1902, 890, 910.

bilobus Looss, 1901l, 569 (in *Chelone mydas*; Egypt); 1902m, 567–568, pl. 27, fig. 100; 569, 878, pl. 27, fig. 100.

linearis Looss, 1901l, 618 (in *Chelone mydas*; Egypt); 1902m, 565–567, 569, 878, pl. 27, fig. 99.

longiusculus Looss, 1902m, 582, misprint.

longiusculus Looss, 1901l, 568–569, 618 (in *Chelone mydas*; Egypt) (582 *longiusculus*); 1902m, 527, 558–561 (syn. *Monost. trigonocephalum* R. of Ben., 1859, 81, pl. 2, fig. 5; Walter, 1893, 191), pl. 27, figs. 94–98, pl. 32, figs. 176, 177; 562, 563, 564, 565, 566, 569, 570 (type of *Pleurogonius*), 588, 589, 591, 592, 596, 617, 788.

minutissimus Looss, 1901l, 7 Nov., 618–619 (in *Chelone mydas*; Egypt); 1902m, 568–569, pl. 27, fig. 101; 879.

trigonocephalus (Rud., 1809) Looss, 1901l, 567–568, 620 (in *Thalassochelys corticata*); 1902m, 416, 417, 548–558 (syns.: *Monost. trigonocephalum* Rud., 1809a, 336; 1819a, 349; Braun, 1901a, 38, pl. 2, fig. 29), pl. 26, figs. 75–78; 569, 570, 575, 588, 813, 876.—Cohn, 1904, 237.

PLEURONECTES Stiles, 1901, 183, lapsus calami for *Pleurogenes*.

PNEUMONÆCES Looss, 1902m, 732, 780, 839 (*Hæmatolæchus* Looss renamed) (type *variegatus*).—Klein, 1905, 64.—Staff., 1905, Apr. 11, 687 (syn. *Hæmatolæchus*).

1899: *Hæmatolæchus* Looss, 1899b, 600 (tod. *variegatus*) [not *Hæmatolæcha* Stål, 1874, hemipteron].

asper (Looss, 1899) Klein, 1905, 64; 1905, 6.

brevipectus (Staff., 1902) Staff., 1905, 687 (in lungs of American toads and frogs).—Klein, 1905, 3, 5, 6; 1905, 61.

PNEUMONÆCES—Continued.

- capryistes* Klein, 1905, 60–65, pl. 5, figs. 1–2 (in *Rana hexadactyla*; from India); 1905, 2–7, pl. 1, figs. 1, 2.
- complexus* Seely, 1906, 249–252, figs. 1–2 (in *Rana pipiens*; North Carolina).
- longiplexus* (Staff., 1902) Staff., 1905, 681; 1905, Apr. 11, 687 (American frogs and toads).—Klein, 1905, 6; 1905, 64.—Seely, 1906, 249.
- medioplexus* (Staff., 1902) Staff., 1905, Apr. 11, 687 (syn. *Ostiolum formosum*) in American frogs and toads).—Klein, 1905, 3, 6; 1905, 61.—Seely, 1906, 252.
- similiplexus* (Staff., 1902) Staff., 1905, Apr. 11, 687 (in American frogs and toads).—Klein, 1905, 6; 1905, 64.—Seely, 1906, 252.
- similis* (Looss, 1899) Looss, 1902m, 762.—Klein, 1905, 2, 3, 4, 5, 6; 1905, 61.
- variegatus* (Rud., 1819) Looss, 1902m, 806.—Engler, 1904, 186.—Klein, 1905, 1, 2, 3, 4, 5, 6; 1905, 59.
- varioplexus* (Staff., 1902) Staff., 1905, Apr. 11, 687 (in American frogs and toads).—Klein, 1905, 3, 6; 1905, 61.
- PODOCOTYLE** (Duj., 1845) (tld. *angulatum* = *atomon*), see also (*Podocotyle*).—R. Bl., 1891, 609.—Braun, 1893a, 885, 886, 890, 909, 910; 1900h, 3.—Fil., 1857c, 9.—Jægers., 1901, 982.—Looss, 1899b, 528, 535, 538, 542, 647; 1902m, 721, 757, 764, 770, 771, 772, 827 (type *angulatum*).—Luehe, 1900u, 487–492; 1900v, 792; 1900, 562; 1901g, 42.—Mont., 1888a, 92, 105; 1892, Oct. 7, 214 (gen. of *Distominæ*); 1893, 150, 151, 152, 153, 155, 167, 168.—Odh., 1905, 326 (type *atomon*).—Pratt, 1902, 888 (related to *Opisthorchiinæ*), 896.—Sons., 1890, 140.—Stiles, 1901, 193, 196.—Stiles & Hass., 1898a, 92–93, 97 (syns.: ? *Schisturus* Rud., *Dist.* (*Podocotyle*) Duj.), type *angulatum*.—Stoss., 1892, 4; 1898, 24; 1902, 582.
- angulata* (Duj., 1845) Jægers., 1901, 982, see *atomon*.
- atomon* (Rud., 1802) Odh., 1905, 320–326, pl. 2, figs. 9–10 (syns.: *Fasc. at.*, *Dist. at.*, *D. angulatum*, *D. simplex* Rud. of Olss., *Allocreadium at.*), type of genus.—Nicoll, 1907, 68, 69, 70, 71, 73–77, pl. 1, figs. 1–2 (syns.: *Psilost. redactum*, *Dist. simplex*) (in *Centronotus grumellus*, *Cottus bubalis*, *C. scorpius*, *Gasterosteus aculeatus*, *Gobius ruthensparri*, *Liparis montagnii*, *Motella mustella*, *Zoarces viviparus*).
- contortum* (Rud., 1819) Stoss., 1898, 24–25 (in *Orthogoriscus mola*; Trieste) [type of *Accacœlium*].—Barbagallo & Drago, 1903, 409 (in *Orthag. mola*; Catania).
- fractum* (Rud., 1819) Stoss., 1898, 26 (in *Box salpa*; Trieste).—Barbagallo & Drago, 1903, 409 (in B. s.: Catania).—Osborn, 1903, 316.—Par., 1902, 4 (in B. s.: Portoferrajo).
- furcatum* (Bremser, 1819) Stoss., 1898, 26 (in *Mullus barbatus*, *M. surmuletus*, *Solea vulgaris*; Trieste); 1899, 5.—Barbagallo & Drago, 1903, 409 (in *Mullus surmuletus*, *Solea vulgaris*; Catania).—Fischder., 1903h, 548.—Jægers., 1901, 982.—Looss, 1902m, 771.—Luehe, 1900, 490, 491 (*furcata*); 1901, 475.
- macrocotyle* (Dies., 1858) Stoss., 1898, 25 (in *Orthogoriscus mola*; Trieste).—Barbagallo & Drago, 1903, 409 (in *Or. mola*; Catania).
- olssoni* Odh., 1905, 326, 327, new name for *Dist. simplex* of Olss. (in *Gadus melanostomus*, *Lumprenus maculatus*; West Coast of Sweden).
- pachysomum* (Eysenhardt, 1829) Stoss., 1898, 27 (in *Mugil*; Trieste).—Barbagallo & Drago, 1903, 409 (in *Mugil cephalus*; Catania).
- pedicellatum* (Stoss., 1887) Stoss., 1898, 25 (in *Chrysophrys aurata*; Trieste).—Barbagallo & Drago, 1903, 409 (in *Chrys. aur.*; Catania).
- planci* Stoss., 1899, 5, fig. 9 (in *Ranzania truncata*; Trieste).—Looss 1902m, 637.
- reflexa* (Crep., 1825) Odh., 1905, 324, 326–327 (in *Cyclopterus lumpus*; West Coast of Sweden).
- retroflexum* (Mol., 1861) Stoss., 1898, 26–27 (in *Belone acus*; Trieste).—Barbagallo & Drago, 1903, 409 (in *Bel. ac.*, *Exocoëtus volitans*; Catania).
- species of Mueller, 1897, 23–24, 26, pl. 3, fig. 8 (in *Numenius arquatus*).
- (**PODOCOTYLE**) Duj., 1845a, 388, 401 (tld. *angulatum*).
- angulatum* Duj., 1845a, 386, 401–402, designated type of subg. by Stiles & Hass., 1898a, 93, (t. h. *Anguilla vulgaris* in the Morbidan).
- fractum* (Rud., 1819) Stoss., 1886, 49 (to *Podocotyle* by Stoss., 1898, 26).
- furcatum* (Bremser, 1819) Duj., 1845a, 402 (to *Podocotyle* by Stoss. 1898, 26).

(PODOCOTYLE)—Continued.

gibbosum (Rud., 1802) Duj. 1845a, 402.

macrocotyle (Dies., 1858) Stoss., 1898, 25.

pachysomum (Eysenhardt, 1829) Stoss., 1886, 57 (to Podocotyle by Stoss., 1898, 27).

perlatum (Nord., 1832) Duj., 1845a, 387, 401 (to D. (Echinost.) by Stoss., 1886, 62) (type of *Asymphyllodora* Looss, 1899b, 598).

retroflexum (Mol., 1861) Stoss., 1886, 60 (to Podocotyle by Stoss., 1898, 26).

unicum (Mol., 1859) Stoss., 1886, 58.

POLISTOMEÆ Mont., 1888a, 13, 34, 42 (see Polystomeæ).

POLISTOMUM Sons., 1889, 283, for Polystomum.

POLYANGIUM Looss, 1902m, 584, 633, 634, 639, 642, 648, 652, 658, 667, 668, 675, 681, 684, 687–688 (tod. linguatula), 689, 698, 699.

linguatula (Looss, 1899) Looss, 1902m, 632, 688, 689, 697, 698, 885, pl. 30, fig. 145–150.

POLYCOTYLA Blainv., 1828a, 569–570 (family name).—Johnston, 1865a, 31.—Nord., 1840, 596.

POLYCOTYLE Will.-Suhm, 1870, 9 (m. ornata); 1871, 183.—Brand., 1888a, 33, 34, 35, 37, 58, 61; 1890a, 562, 563, 564, 567, 584.—Braun, 1892a, 581, 698, 713, 715, 717, 718, 723, 732; 1893a, 879, 881, 886, 887, 890, 892, 895, 899, 900, 901, 917; 1895b, 121, 136.—Gamb., 1896, 73.—Mont., 1888a, 10, 12, 15, 54, 90, 91, 104; 1892, Oct. 7, 196, 197, 214 (Diplostominæ).—Pratt, 1902, 890.—Schneidemuëhl, 1896, 295 (Polykotyle).—Tasch., 1879, 256.—Wolf, 1903, 616, 617.

1896: Polykotyle Schneidemuëhl, 1896, 295, for Polycotyle.

ornata Will.-Suhm, 1870, 9–11 (in *Alligator lucius*; Charleston); 1871, 183–185, pl. 11, fig. 1.—Brand., 1888a, 15, 58 (in *All. luc.*); 1890a, 584–585.—Braun, 1892a, 581, 733; 1893a, 901.—Pavesi, 1881, 294.—Poir., 1886, 339–345, pl. 18, fig. 7, pl. 19, fig. 1, 3, 5, 6, pl. 20, fig. 5 (in *All. luc.*).—Reported also for *Alligator mississippiensis*.

POLYCOTYLEA Dies., 1850a, 288 (tribe), 289, 408 (tribe III of Trematoda, subo. II), 416 (tribe I of Bdellidea, subo. III); 1858e, 314 (fam. of Trematoda cotylophora), 367.—Brand., 1888a, 15.—Braun, 1890a, 515.—Cerf., 1899a, 351.—Goldb., 1855a, 17, 18.—Mont., 1888a, 83, 84; 1903, 336 (section, contains: Polystomidæ Ben., 1858; Octocotylidæ Ben. & Hesse, 1863).—Tasch., 1879, 233, 234.

POLYCOTYLEE Dies., 1839a, 234.—Cobbold, 1877, 238.

POLYCOTYLIDÆ Cobbold, 1877f, 326.—Braun, 1893a, 886.—Mont., 1888a, 104.

POLYCOTYLINÆ Mont., 1892, Oct. 7, 214 (subf. of Holostomidæ).—Braun, 1893a, 890, 892.

POLYKOTYLE Schneidemuëhl, 1896, 295, for Polycotyle.

POLYORCHIS (Stoss., 1888) [nec *Polyorchis* Agassiz], renamed *Pleorchis* 1896, (type by absolute tautonymy *polyorchis*); 1892, 4; 1898, 30.—Braun, 1893a, 885, 886, 894, 909, 911; 1895b, 138; 1901b, 54.—Looss, 1894a, 174; 1896b, 59; 1902m, 846.—Mont., 1893, 148, 149, 150, 151, 154.—Ofenheim, 1900, 160.—Rail., 1896, 160 (= *Pleorchis*).—Sons., 1890, 134, 135.—Stiles & Hass., 1898a, 92 (syn. of *Pleorchis*).

formosum (Sons., 1890) Stoss., 1892, 143 (in *Grus cinerea*; Pisa).

molle (Leidy, 1856) Mont., 1896, 166.

polyorchis (Stoss., 1889) Mont., 1896, 166.

(POLYORCHIS) Stoss., (1888), subg. of *Dist.*, [type *polyorchis*].

cygnoides (Zed., 1800) Stoss., 1889, 60.

molle (Leidy, 1856) Stiles & Hass., 1894h, 162–163, fig. 2; 1895a, 737–741, pl. 3, figs. 1–3.

ragazzii Setti, 1897, 8 (type of *Syncelium* Looss, 1899).

POLYSARCUS Looss, 1899b, 561 (tod. *westermanni*) [nec *Polysarcus* Fieb., 1853, orthopteron; Sauss., 1859, orthopteron; Lefèvre, 1876, coleopteron; *Polysarca* Schin, 1866, dipteron]; 1900, 605.—Braun, 1900h, 6; 1901e, 329 (= *Paragonimus*).—Luehe, 1900, 557.—Stiles, 1901, 189.—See *Paragonimus*.

westermanni (Leuck., 1889) Looss, 1899b, 561.

POLYSSICHIA Cosmovici, 1887 (contains *Aspidogaster*, *Diplozoon*, *Diporpa*, *Gyrodactylus*, *Octobothrium*, *Polyst.*).—Mont., 1888a, 84.

- POLYSTOMA Zed., 1800a, xviii, 199-203 (nec Polyst. Steph. Col., 1835), includes *Linguatula serrata* Fœrelich. *Hexathyridium pinguicola* Treutler, 1793 (type was clearly intended to be *Planaria uncinulata* = Polyst. ranæ; name Polyst. was in MS. in 1788 based on this species, see Zed., 1803a, 223).—Andral, 1829d, 617.—Audouin, 1828b, 193.—Baer, 1826a, 126.—Ben., 1858a, 1861a, 11 (Polystomum).—Ben. & Hesse, 1864, 61.—E. Bl., 1847, 331.—R. Bl., 1888a, 312 (Polystomes).—Brand., 1891d, 9.—Braun, 1883a, 50; 1889k, 620, 621; 1890a, 413, 416, 424, 433, 435, 451, 454, 470, 479, 480, 481, 483, 487, 490, 491, 492, 493, 496, 498, 504, 511, 514, 515, 516, 517, 522, 523, 538, 546; 1890b, 125, 127, 128; 1890e, 597; 1891d, 421; 1892a, 753; 1893a, 890, 891.—Brem., 1824, 135.—Burm., 1837a, 530; 1856a, 251.—Carus, 1863, 478.—Ceri., 1899a, 348, 350, 351, 359, 371.—delle Chiaje, 1833, 13; 1835b, 76-90; 1837a, 5-19 (*Polistoma* in blood of man; 1837b, 245-246; 1843b, 51.—Cobbold, 1866, 7; 1877, 238; 1879b, 41.—Cosmovici, 1887a, 129.—Crep., 1839, 290.—Cuvier, 1817, 42.—Deslongchamps, 1824mm, 648-650; 1828d, 192-193.—Dies., 1839, 234; 1850a, 288, 409 (syn. of *Hexathyridium*), 412-413 (includes: *Plan. Braun*, *Linguatula Fœrelich*, *Fasc. Gmelin*, *Hexathyridium Blainv.*), 416 (of *Delaroché*, syn. of *Plagiopeltis*), 419 (of *Kuhn*, syn. of *Onchocotyle*), 420 (of *delle Chiaje*, syn. of *Solenocotyle*), 421 (of *Duj.*, syn. of *Diclibothrium*), 609 (of *Rud.*, pars syn. of *Pentast.*); 1858e, 314, 371-372 (only species *integerrimum*).—*Duj.*, 1845a, 318.—Eichwald, 1829a, 249.—Eiss., 1838, 21.—Fischer, 1840, 159.—Gamb., 1896a, 57, 59, 73.—Goldb., 1855, 17.—Goldschmidt, 1902e, 874.—Goto, 1891a, 174, 183, 185, 187.—Hahn, 1900a, 174-175.—Haswell, 1892a, 458; 1892b, 149; 1893e, 112, 144.—Hémont, 1827, 9.—L'Hermier, 1826, 10.—Hoyle, 1890, 535-537, 539 (two species; best known *P. integerrimum*; *Hexathyridium* is probably a synonym).—Jackson, 1888, 644, 646, 647, 654.—Joy, 1835a, 504.—Juel, 1889, 33.—Kath., 1894a, 130, 148.—Lamarck, 1816b, 175-176.—Leuck., 1863a, 450, 527.—Looss, 1892a, 72, 73, 95; 1893b, 810.—Mayer, 1841a, 20.—Mlinarich, 1832, 14.—Mont., 1888a, 8, 9, 11, 13, 14, 29, 37, 38, 40, 42, 44, 53 (*Polystomum*), 54, 56, 57, 58, 59, 60, 63, 64, 66, 67, 70, 83, 84, 86, 89, 100; 1892, 109; 1892, Oct. 7, 186, 213 (gen. of *Polystominae*); 1893, 110; 1903, 336 (subf. *Polystominae*).—Moul., 1856a, 10, 11.—Nord., 1832a, 60, 69; 1840, 544, 592, 593, 596-597.—Olfers, 1816, 22, 41.—Pag., 1857, 52.—Pintner, 1891, 727.—Pratt, 1900, 645, 646, 647, 650, 656, 659, fig. 23.—Rafinesque, 1815, 151 (syn. of *Hexathyridia*).—Rud., 1809a, 6, 22-23, 38, 441, pl. 6, figs. 1-6; 1819a, 125, 435-436, 584.—St.-Remy, 1898, 558.—Schneider, 1866, 334.—Slawikowski, 1819, 70.—Stoss., 1895a, 10, 11.—Tasch., 1879, 43, 50, 58, 62, 64, 69; 1879, 232, 233, 251-252 (syns.: *Hexathyridium Blainv.*, *Planaria Braun*, *Linguatula Fœrelich*, *Fasc. Gmelin*).—Wagener, 1857, 50, 72.—Wallenstedt, 1847, 7.—Zeller, 1876, 23 June, 238-274, pls. 17-18.
- : *Polystomum*.
- 1837: *Polistoma delle Chiaje*, 1837a, 5-19, for *Polystoma*.
- 1888: *Polystomum Mont.*, 1888a, 53, misprint.
- of *Kuhn*, 1829c: 1830a; 1830b, 185-187 (in *Squalus catulus*).—Tasch., 1879, 252 (syn. of *Onchocotyle Dies.*)
- of *Duj.*, 1845a, 319.—Tasch., 1879, 254 (syn. of *Diplobothrium Leuck.*)
- *Delaroché*, 1811, 271-272 [n. g.?] (type species *thynni*).—Audouin, 1828b, 193 (syn. of *Polyst. duplicatum*).—Blainv., 1824a, 514 ("M. de Lamarck a adopté ce genre de *Delaroché*; il est établi sur un animal de la famille des sanguines, suivant nous"). 515.—Rafinesque, 1815, 151 (renamed *Hexost.*).—Tasch., 1879, 249 (syn. of *Hexacotyle Blainv.*).—See *Polyst. thynni*, p. 353.
- appendiculatum* *Kuhn*, (1829c), 460-463, pl. 11, figs. 1-3 (t. h. *Squalus catulus*); 1829f, 342.—Ben., 1858a, 1861a, 54, 55 (to *Onchocotyle*), 191, 192.—Bl., 1847, 336 (of *Nord.*).—Ceri., 1899a, 349, 350, 351, 352-356, 359, 373, 375, 378 (in *Mustelus laevis*, *M. vulgaris*, *Scyllium catulus*). 434.—Cobbold, 1872b, 90; 1879b, 41.—Crep., 1838, 84; 1839, 290.—Dies., 1850a, 419 (to *Onchocotyle* as type); 1858e, 371 (to *Onchocotyle*).—*Duj.*, 1845a, 321.—Goto, 1894a, 222 (Japan).—Nord., 1832a, 80-82, pl. 5, figs. 6-7 (in *Squalus catulus*); 1840, 601 (to *Hexabothrium*).—Scott, A., 1901, 344 (to *Onchocotyle*).—Tasch., 1879, 27, 28 (to *Onchocotyle*); 1879, 253.—Thaer, 1850, 602-630, pl. 20-22, figs. 1-45; 1851, 34 pp., pls. 1-3.
- armatum* (*Leuck.*, 1835) *Duj.*, 1845a, 319 (to *Polyst. (Hexacotyle)*).—E. Bl., 1847, 335.—Dies., 1850a, 421 (to *Diclibothrium*).—Tasch., 1879, 254 (to *Diplobothrium*).—Type of *Diclibothrium* 1835.
- borealis* (*Ben.*, 1853) *Wagener*, 1857, 72.—Ceri., 1899a, 359, 377.—Dies., 1858e, 371 (to *Onchocotyle*).—St.-Remy, 1890, 41.

POLYSTOMA—Continued.

- coronatum* Leidy, 1888, 127 (in terrapin; eastern U. S. A.); 1904a, 213.—Braun, 1890a, 511, 538, 548, 552 (in *Cistudo carolina*).—Pratt, 1900, 659.
- denticulatum* (Rud., 1805) Rud., 1808a, 180; 1809a, 447–449, pl. 12, fig. 7 (to Polyst. (Pentast.)) (in *Capra americana*, *C. hircus*).—R. Bl., 1890a, 264.—Dies., 1850a, 615 (to Pentast.).—Olfers, 1816, 42.
- duplicatum* Rud., 1819a, 125, 438–439, pl. 2, fig. 6 (*P. thynni* Delaroché, 1811, renamed) (in *Scomber thynnus*; Balearic Isles).—Audouin, 1828, 193.—Crep., 1839, 290.—Deslongchamps, 1828d, 193.—Dies., 1850a, 417 (to *Plagiopeltis* as type) in *Thynnus brachypterus*.—Duj., 1845a, 318–319 to Polyst. (Hexacotyle).—Kroyer, 1838–40a, 251, 596 (in *Thynnus vulgaris* Cuv.).—Nord., 1832a, 62; 1840, 598 (syn. of *P. thynni*).—Tasch., 1879, 250 (syn. of Hexacotyle thynni).
- hassalli* Goto, 1895, 352 (in *Kinosternon pennsylvanicum*; Maryland); 1899, 276–278, pl. 21, figs. 16, 17.—Pratt, 1900, 656, fig. 23; 657, 659.—St.-Remy, 1898, 558.
- integerrimum* (Frølich, 1791) Rud., 1808a, xxv, pl. 6, figs. 1–6; 1809a, 451–455, pl. 6, figs. 1–6, to *P. (Hexastoma)* (includes: *Planaria uncinulata* Braun, 1792; *Linguatula integerrima*, 1791; *Fasc. uncinulata*, 1790, *Polystoma ranæ*, 1800; *Linguatula integerrimum*); 1819a, 125 (in *Rana temporaria*; *Gryphæ*, Jun.; *R. esculenta*, *Bufo variabilis*).—Baer, 1826a, 126; 1827a, 680–689, pl. 32, figs. 7–9.—Ben., 1858a, 1861a, 54, 169, 171, 172, 196; 1870c, 140.—Ben. & Hesse, 1864, 84–87, 1 fig. (*integerrimum*).—Bettend., 1897a, 4; 1897, 308.—E. Bl., 1847, 331–334, pl. 14, fig. 3.—Braun, 1883a, 41, 44, 48, 49, 51, 56, 71, fig. 10; 1889k, 621; 1890a, 407, 408, 410, 415, 419, 421, 424, 426, 428, 430, 433, 436, 439, 442, 445, 449, 453, 454, 455, 456, 458, 461, 464, 465, 468, 471, 472, 475, 480, 482, 483, 487, 490, 491, 492, 493, 494, 495, 497, 499, 500, 501, 503, 511, 512, 538, 548, 552; 1890d, 568; 1890e, 596; 1891a, 52, 53, 54; 1892a, 753; 1894a, 1160; 1895b, 125, 130, fig. 42; 1906, 131, fig. 66 (in frog).—Bremser, 1824c, pl. 10, fig. 26.—Civinini, 1842.—Cobbald, 1858, 162; 1879b, 452.—Crep., 1837, 322; 1839, 290.—Deslongchamps, 1828a, 193.—Dies., 1850a, 412–413 (syns.: *Plan. uncinulata* Braun, *Linguatula integ.*, *Fasc. uncinata* Gmelin, *Polyst. ranæ* Zed., *Hexathyridium integ.* Blainv.); 1858e, 372 (only species) (in *Rana platyrhinus*).—Duj., 1845a, 320.—Eichwald, 1829a, 249.—Fraip., 1880a, 400; 1880c, 433; 1883a, 36.—Gamb., 1896a, 55, 58–59, figs. 24, 26.—Goldschmidt, 1902a, 397–444, pls. 22–24, figs. 1–40 (embryology); 1902b, July, 398–399; 1902c, 180–189, figs. 1–11 (development); 1902d, 736; 1902e, 874; 1905, July, 64–65.—Goto, 1891a, 184.—Halpin, 1901a, 291–363, pls. 10–14 (embryology); 1902a, 395–398; 1904a, 444.—Hoyle, 1890, 537–539, fig. 3 B.—Ijima, 1884c, 635–639.—Jackson, 1888, 643, 644, 645, 646, 648–649, 650 (in *Rana temporaria*, *R. esculenta*, *Bufo viridis*).—Janicki, 1903a, 241 ff.—Juel, 1889, 14.—Kath., 1894a, 132, 141, 142, 146, 152.—Kerbert, 1881a, 535, 554, 556, 572.—Kholodk., 1899a, 148, fig. 175.—Knoch, 1862, 101.—Kowal., 1895, 372–390, pl. 8, figs. 11–13; 1896d (2), 252 (in *Rana fusca*; *Dublaný*); 1904, (9), 24 (in *Rana temporaria*; *Dublaný*).—Lejtenyi, 1881a, 3.—Leuck., 1879, 26, 52; 1886d, 19, 40.—Linst., 1903, 279.—Looss, 1885b, 17, 18, 19, 21, 24.—Macé, 1882a, 26, 29, 78.—Mayer, 1841a, 26, 34.—Mont., 1888a, 10, 18, 39, 44, 58, 59, 70; 1892, Oct. 7, 186; 1893, 110, 111.—Mueh., 1898, 11, 17–18.—Nord., 1832a, 62, 79; 1840, 546, 601.—Olfers, 1816, 42.—Pag., 1857, 47–49, pl. 6, figs. 10–13 (in braunen Frösche).—Par., 1841, 471.—Pégot, 1900, 162–164.—Pintner, 1891, 727, 728.—Polonio —.—Sieb., 1835, 70.—Sons., 1893, 187 (in *Bufo viridis* Laur.).—Stieda, 1870, 675; 1871, Jan., 660–678, pl. 15, figs. 1–12.—Stoss., 1889, 29; 1898, 10–11.—Tasch., 1879, 33, 35, 43, 55, 56, 58, 60, 61; 1879, 252 (in *Rana temporaria*, *R. esculenta*, *Bufo viridis*).—Walter, 1866, 65.—Will.-Suhm, 1871, 181–185; 1872, 22 March, 29–39, pl.—Zeller, 1872, v. 22 (1), 1–24, pls. 1–2; 1872, 25–28, pl. 3, figs. 1–12; 1872, Sept., 99–112; 1873, 51–55.—Woodland, 1904, 404–405, 1 fig.—Reported also for *Rana fusca*, *Hyla viridis*.
- integerrimum* Ben. & Hesse, 1864, 84–87, 1 fig. (see *integerrimum*).—Pégot, 1900, 162–164.
- loliginis* delle Chiaje, 1823, pl. 92, fig. 2 (in *Loligo vulgaris*; Naples).—Ben. & Hesse, 1864, 84.—Braun, 1890a, 518.—Dies., 1850a, 420 (syn. of *Solenocotyle chiajei*, type of *Solen.*).—Mont., 1888a, 89.—Tasch., 1879, 250.
- midas* Kuhl & van Hasselt, (1824).—Baird, 1853a, 41 (= *P. ocellatum* Rud.).—Nord., 1840, 600.

POLYSTOMA—Continued.

- mydæ* Kuhl & van Hasselt, (1822), 113; 1824a, 310.—Crep., 1846, 146.—Dies., 1850a, 413 (syn. of *P. ocellatum* Rud.).—Tasch., 1879, 252 (syn. of *P. ocellatum*).—Reported for *Chelonia mydas*.
- oblongnum* Mont., 1888a, 57 (for *oblongum*).
- oblongum* R. Wright, 1879, 12–15, pl. 1, figs. 9–11 (in *Aromochelys* (*Sternotherus*) *odoratus*; Toronto).—Braun, 1890a, 511, 538, 548, 552.—Goto, 1899, 277, pl. 21, fig. 18.—Leidy, 1888, 127.—Mont., 1888a, 57 (*oblongnum*).—Pratt, 1900, 659.—Staff., 1900, 405, 414; 1902, 483 (in *Chelydra serpentina*); 1905, Apr. 11, 690 (in *Chrysemys picta*; *Chel. serp.*; Canada).—Reported for *Sternotherus odoratus*.
- ocellatum* Rud., 1819a, 125, 436–437 (in *Testudo orbicularis*; Arimini).—Ben. & Hesse, 1864, 84.—Blainv., 1828, 571, to *Hexacotyla*.—E. Bl., 1847, 335–336.—Braun, 1890a, 418, 434, 439, 440, 452, 453, 465, 472, 477, 494, 506, 511, 538, 548, 552; 1891a, 52, 54; 1891d, 421; 1892a, 637; 1893b, 179, 185 (in *Emys europæa*).—Crep., 1838, 84; 1839, 290.—Deslongchamps, 1828d, 193.—Dies., 1850a, 413 (syns. *P. mydæ*, *Hexacotyle* oc.).—Duj., 1845a, 319–320.—Gamb., 1896, 59.—Giebel, 1857, 266.—Goto, 1891a, 183.—Ijima, 1884c, 636, 638.—Jackson, 1888, 649, 650.—Leidy, 1888, 127.—Looss, 1885b, 21, 22, 24, pl. 23, fig. 19.—Macé, 1882a, 26.—Mont., 1888a, 18, 58; 1892, Oct. 7, 186; 1893, 110, 111.—Nord., 1840, 600 (syn. of *Hexacotyle* oc.).—Par., 1894.—Sons., 1889, 283 (*Polistomum*); 1893, 183 (in *Emys lutraria*).—Stoss., 1890, 51.—(Tasch., 1879, 252 (syns. *P. mydæ*, *Hexacotyle* oc.) (in *Emys europæa*, *Halichelys atra*).—Reported also for *Cistudo europæa*.
- pinguicola* (Treutler, 1793) Zed., 1800a, 203 [type of *Hexathyridium* 1793].—Boele, 1828a, 33.—Bremser, 1819a, 233, pl. 4, figs. 15–17; 1824, 135, 272–280, pl. 9, fig. 2.—delle Chiaje, 1833, 13–14, 117–118, pl. 2, fig. 14.—Cobbold, 1866, 7; 1876, 211.—Crep., 1839, 290.—Deslongchamps, 1828d, 193.—Dies., 1850a, 410 (to *Hexathyridium*).—Duj., 1845a, 319.—Dunglison, 1893, 821, 900.—Eichwald, 1829a, 249.—Eiss, 1838, 21.—Hémont, 1827, 17.—L'Herminier, 1826, 14.—Joy, 1835a, 504, 519.—Kuech., 1855, 464.—Lundborg, 1817, 8.—Minarich, 1832, 14.—Nord., 1840, 594 (to *Linguatula*), 601.—Olfers, 1816, 42.—Prunèvre, 1823, 7.—Puettner, 1837, 4.—Rud., 1809a, 455–456, to *P.* (Hexast.); 1819a, 125, 437–438.—Sjöbeck, 1830, 10.—Slawikowski, 1819, 23, 25, 70, 141.
- pinguiculum* Joy, 1835a, 505, for *pinguicola*.
- proboscideum* Rud., 1814a, 106–107 (*Echinorhynchus crotali* Humboldt, 1808, renamed), to *P.* (Pentast.).—Dies., 1850a, 612 (to Pentast.).—Leidy, 1852, 97.—Nord., 1840, 645 (syn. of *Porocephalus crotali*, type of *Poroc.*).—Olfers, 1816, 42. Now an arachnoid.
- ranae* Zed., 1800a, xviii, 203, 204–205, pl. 4, figs. 1–3 (in *Rana temporaria*; bladder, Europe) (includes *Plan. uncinulata* Braun, 1790, from *Rana esculenta*; Europe); 1803a.—Dies., 1850a, 412 (syn. of *P. integerrimum*).—Rud., 1809a, 451, 452 (= *P. integerrimum*).—Stoss., 1898, 10.
- sanguicola* delle Chiaje, 1833, 14 (*venarum*, renamed), 118; 1834, —; 1837a, 5–19.—Cobbold, 1876, 211.—Dav., 1877a, 334.—Dies., 1850a, 410 (syn. of *Hexathyridium venarum*).—Dolley, 1894a, 1006.—Dunglison, 1893, 821, 900.—Marcacci, 1843a.
- sanguineum* delle Chiaje, 1837b, 245 (based on 1837a) (in *Homo*).—Crep., 1839, 290.—Eiss, 1838, 21.—Leuck., 1863a, 585.—Moniez, 1896, 108.—Sieb., 1839, 164.
- scymni ainosi* Dies., 1858e, 371 (to *Onchocotyle*) based on Wagener, v. 13, 72.—Cerf., 1899a, 360.
- serratum* (Frellich, 1889) Zed., 1800a, 203 [type of *Linguatula*, 1789]; 1803a, 230.—Blainv., 1824a, 514 (type of *tétragule*).—Dies., 1850a, 616 (to Pentast.).—Nord., 1840, 594 (to *Linguatula*).—Olfers, 1816, 42.—Risso, 1826, 263.—Rud., 1809a, 449–451 to *P.* (Pentast.); 1819a, 124 (= Pentast. *serratum*).—Reported for *Lepus timidus*.
- tænioidea* Nord., 1840, 595, for *tænioides*.
- tænioides* Rud., 1809a, 441–447, pl. 12, figs. 8–12 (*Tænia rhinaria* Pilger, 1802, renamed), to *P.* (Pentast.) (in *Equus* cab., *Canis* fam.; France); 1810a, 256; 1814a, 107.—Anacker, 1890m, 506.—Blainv., 1824a, 513 (type of “prionoderme”).—R. Bl., —, 261.—Braun, 1903, 3. ed., 337 (syn. of *Linguatula rhinaria*).—Dies., 1850a, 610 (to Pentast.).—Nord., 1840, 595 (*tænioidea*, to *Linguatula*).—Olfers, 1816, 42.

POLYSTOMA—Continued.

thynni Delaroche, 1811, 271–272, pl. 2, fig. 3 (in *Scomber thynnus*; Maroquee).—Blainv., 1828a, 571 (type of *Hexacotyle*).—E. Bl., 1847, 335.—Crep., 1838, 84.—Dies., 1850a, 417 (syn. of *Plagiopeltis duplicata*, type of Pl.).—Lamarck, 1816b, 176.—Nord., 1832a, 62; 1840, 597–598 (syns.: *Hexacotyle thynni*, *P. duplicatum*), 600.—Risso, 1826, 263.—Tasch., 1879, 250 (syn. of *Hexacotyle thynni*).

uncinatum Macé, (1880a).—Braun, 1890a, 511, 538, 548, 552.—Stoss., 1898, 10 (in *Rana temporaria*; France).

uncinulatum Macé.—Braun, 1890a, 418, for *uncinatum*.

venarum (Treutler, 1793) Zed., 1803a, 231.—delle Chiaje, (1834a) 1833, 14–15, 118–119, pl. 2, fig. 15.—Cobbold, 1866, 7.—Crep., 1839, 290.—Dies., 1850a, 410.—Dunglison, 1893, 821, 900.—Hémont, 1827, 16.—Moniez, 1896, 108.—Olfers, 1816, 42.—Rud., 1809a, 456–457; 1819a, 136.—Slawikowski, 1819, 24, 70.—Reported for *Homo*.

POLYSTOMA (HEXACOTYLE) Duj., 1845a, 318–319.

armatum (Leuck., 1835) Duj., 1845a, 319.—Type of *Diclibothrium*, 1835.

duplicatum (Rud., 1819) Duj., 1845a, 318–319 (to *Plagiopeltis* as type by Dies., 1850a, 417).

POLYSTOMA (HEXAST.).

integerrimum (Frœlich, 1791) Rud., 1809a, 451–455.

pinguicola (Treutler, 1793) Rud., 1809a, 455–456.

POLYSTOMA (PENTASTOMA).

denticulatum (Rud., 1805) Rud., 1809a, 447–449, pl. 13, fig. 7 (to *Pentast.* by Rud., 1819a, 124, 423).

proboscideum Rud., 1814a, 106–107 (type of *Porocephalus*; *Echinorhynchus crotali* Humboldt, 1808, renamed) (to *Pentast.* by Rud., 1819a, 124).

serratum (Frœlich, 1789) Rud., 1809a, 449–451 (to *Pentast.* by Rud., 1819a, 124).

tænioides Rud., 1809a, 441–447, pl. 11, figs. 8–12 (in *Canis familiaris*; France) (*Tænia rhinaria* Pilger, 1802, renamed) (to *Pentast.* by Rud., 1819a, 123).

POLYSTOMATA Zed., 1800a, 203, plural of *Polystoma*.

POLYSTOMATIDÆ Gamb., 1896a, 53, 55, 73.—Scott, 1901, 141, 145.

POLYSTOMATINÆ Gamb., 1896a, 73.

POLYSTOMEA Ben.—Braun, 1890a, 516.—Olss., 1893, 4.

POLYSTOMEÆ Leuck.—Braun, 1883a, 40, 58; 1890a, 516, 517, 523, 524, 532; 1890b, 127.—Cerf., 1894, 948; 1895e, 523 (of *Tasch.*); 1895h, 914, 919; 1896, 500, 509, 515; 1898b, 361; 1899a, 365, 452 (of *Tasch.*).—Haswell, 1892a, 457.—Hoyle, 1890, 539 (includes *Octobothriidæ*, *Polystomidæ*, *Microcotylidæ*, *Gyrodactylidæ*).—Jackson, 1888, 642, 644, 646, 654 (includes same as Hoyle).—MacLaren, 1904, 598.—Mont., 1888a, 7, 10, 11, 13, 15, 16, 18, 20, 26, 27, 28, 31, 32, 34, 36, 37, 38, 41, 47, 48, 50, 53, 54, 56, 66, 67, 70, 84, 86, 87, 88, 90, 96, 98, 107, 108; 1888a, 16, 34, 42 (*Polistomeæ*); 1891, 108.—Par.,—Par. & Perugia, 1890, 6; 1890, 225–242; 1891, Mar. 7, 319.—Schneidemuehl, 1896, 296.—Sons., 1890, 175.—Tasch., 1879, 33, 56, 57, 68; 1879, 234, 235, 236–237, 238.

1888: *Polistomeæ* Mont., 1888a, 16, for *Polystomeæ*.

POLYSTOMES R. Bl., 1888a, 312, French word, see *Polystoma*.

POLYSTOMIDÆ Cunningham, 1884a, June 12, 399.—Hoyle, 1890, 539 (includes *Polyst.*, *Onchocotyle*, *Ercocotyle*, *Diplobothrium*).—Jackson, 1888, 654 (includes *Polyst.*, *Onchocotyle*).—Pratt, 1900, 646 (of *Tasch.*) (includes *Polystominæ*, *Octocotylinæ*, *Microcotylinæ*).—Scott, T., 1901, 141.

POLYSTOMIDÆ Braun, 1890a, 511, 516, 517, 523, 533, 538; 1893a, 890.—Carus, 1863, 477.—Cobbold, 1879b, 4.—Cunningham, 1884, 399; 1887a, 279.—Leuck., 1886d, 117.—Mont., 1888a, 8, 11, 13, 15, 16, 18, 20, 30, 34, 37, 52, 66, 70, 86, 89, 91, 100, 108; 1888a, 16, 88 (*Polistomidæ*), 89 (*Polystomidaes*); 1892, Oct. 7, 198, 213 (f. of *Eterocotylea*, containing subf. *Polystominæ* Ben., *Octocotylinæ* Ben. & Hesse, *Microcotylinæ* *Tasch.*); 1903, 336 of Ben. & Hesse, 1858 (subf. *Polystominæ* (g. *Polystomum*)).—Par. & Per., 1889, 742; 1890, 7.—Poir., 1886, 345.—St.-Remy, 1898, 522, 523, 544.—Schneidemuehl, 1896, 296.—Stoss., 1898, 10.—Tasch., 1879, 69; 1879, 235, 237, 251.

1888: *Polistomidæ* Mont., 1888a, 16, 88, for *Polystomidæ*.

1888: *Polystomidaes* Mont., 1888a, 89, typographical error.

8588—No. 37—08—23

- POLYSTOMIDEA Mont., 1888a, 84.
- POLYSTOMIDES Mont., 1888a, 86.—Tasch., 1879, 235.—R. Bl., 1888a, 541 (embraced in subo. Polystomiens).
- POLYSTOMIENS [French] R. Bl., 1888a, 541 (suborder, includes: Tristomidés, Polystomidés, Gyrodactylidés).
- POLYSTOMINÆ Pratt, 1900, 646, 650 (of Ben.) (includes Polyst., Erpocotyle, Onchocotyle, Diplobothrium, Sphyrnura).
- POLYSTOMINÆ Ben.—Braun, 1893a, 890.—Mont., 1892, Oct. 7, 213 (subf. of Polystomidæ); 1903, 336 (new subf. of Polystomidæ).—St.-Remy, 1898, 558.
- POLYSTOMIS Crep., 1838, dative of Polyst.
- POLYSTOMNM Mont., 1888a, 53, misprint for Polystomum.
- PROBOLITREMA Looss, 1902m, 855, 857 (in subf. Anaporrhutinae), 858, 859, 860, 863 (diagnosis), fig. 6 (tod. ricchiardii).
- capense* Looss, 1902m, 855, 857, 863, "Anaporrhutum ricchiardii Lopez" of Ofenh., renamed.
- ricchiardii* (Lopez, 1888) Looss, 1902m, 855, 857, 863 (ricchiardii, misprint for ricchiardii).
- PROGONUS Looss, 1899b, 643 (tod. mülleri) (ὁ πρόγονος=ancestor) [not Progona Berg, 1882, insect]; 1900, 602, 603; 1901, 208; 1902m, 732 (renamed Genarches).—Fuhrmann, 1904, 61.—Luehe, 1901, 481, 486.—Pratt, 1902, 889, 905.—Stiles, 1901, 189.
- mülleri* (Levin., 1881) Looss, 1899b, 643; 1902m, 732, type of Genarches, 1902.—Luehe, 1901, 481.
- PRONOCEPHACUS Braun, 1901b, 50, lapsus for Pronocephalus.
- PRONOCEPHALIDÆ Looss, 1902m, 527, 580-617, 843 (includes: Charaxicephalus Looss, type robustus; Pyelosomum Looss, type cochlear; Cricocephalus Looss, type albus; Epibathra Looss, type crassa; Adenogaster Looss, type serialis; Pronocephalus Looss, type obliquus; Glyphicephalus Looss, type solidus; Pleurogonius Looss, type longiusculus), 611-612 (key to genera), 611 diagnosis.
- PRONOCEPHALINÆ Looss, 1899b, 665, 668; 1902m, 841.—Braun, 1901b, 50, 53.—Pratt, 1902, 890, 909 (includes: Pronocephalus, Pleurogonius, Glyphicephalus, Adenogaster, Cricocephalus, Pyelosomum; related genus: Charaxicephalus).
- PRONOCEPHALUS Looss, 1899b, 551, 666 (ὁ πρῶν=Vorsprung) (tod. "trigonocephalus Rud." [=obliquus, 1901]); 1901, 209; 1901, 567, 620; 1902m, 455, 531, 546, 551, 552, 570, 576, 583, 586, 594, 595, 596, 598, 599, 600, 603, 604, 609, 612, 615-616.—Braun, 1901b, 41.—Pratt, 1902, 890, 909.
- 1901: Pronocephacus Braun, 1901b, 50, misprint.
- obliquus* Looss, 1901, 30. Okt., 566-567 ("trigonocephalus (Rud.)" of Looss, 1899b, 666, 756, figs. 84-86); 1902m, 527-532, pl. 25, figs. 55-56; pl. 26, fig. 70; pl. 32, fig. 175; 616 (includes "Monost. trigonocephalum" of Braun, 1901, 40).
- "*trigonocephalus* (Rud., 1809)" Looss, 1899b, 666, 756-759, 760, 761, 762, figs. 84, 85, 86; 1901, 566 (renamed obliquus); 1902m, 527 (syn. of P. obliquus), 549 (of Rudolphi to Pleurogonius), see Looss, 1901, 567.—Braun, 1901b, 38, 40.—Shipley, 1900, 533 (Rud.).
- PRONOPHARYNX Cohn, 1904, 239-240 (tod. nematoides).
- nematoides* Cohn, 1904, 238-240, fig. 5 (in Aquila albicilla; Coll. Creplin).
- PRONOPYGE Looss, 1899b, 641-642 (ὁ πρῶν=Vorsprung; ἡ πύγη=der Hintere) (tod. ocreata); 1902m, 839.—Luehe, 1901, 481, 485.—Pratt, 1902, 889, 906.
- ocreata* (Rud., 1802) Looss, 1899b, 641-642.—Luehe, 1901, 400, 481.—See Dist. carolinæ.
- PROSORHYNCHUS Odhn., 1905, 296, 297-305 (tod. squamatus).
- aculeatus* Odhn., 1905, 297, 302, 305 (syns. Gasterost. crucibulum Ben., 1870; G. armatum Olss., 1876) (in Conger vulgaris; Mediterranean, Belgium, Sweden).
- crucibulum* (Rud., 1819) Odhn., 1905, 297, 305 (syns. Monost. crucibulum Rud.=Gasterost. armatum Mol.=G. crucibulum Olss.) (in Conger sp.; Mittelmeer, Sweden).

PROSORHYNCHUS—Continued.

squamatus Odhn., 1905, 297–304, 305, pl. 2, figs. 1–5 (syn. *Gasterost. armatum* Mol. of Levinsen) (in int. of *Cottus scorpius*; Belgium).—Nicoll, 1907, 70–71 (in *Cottus bubalis*, *Liparis montagui*).

PROSTOTOMATA Odhn., 1905, 305, suborder of Digenea to include all except the *Gasterostomata* (*Gasterostomum*, *Prosorhynchus*).

PROSOTOCUS Looss, 1899b, 616, 623 (*πρόσω*=cephalad; *ὁ τόκος*=das Gebären) (tod. confusus).—Pratt, 1902, 889, 902, 904.—Stiles, 1901, 197.

confusus (Looss, 1894) Looss, 1899b, 616.—Ssinitzin, 1905, 144–145; 1906, 687 (in *Aeschna*, *Cordulia*, and a beetle larva; Warschau).—Staff., 1905, Apr. 11, 684, 685.

tener (Looss, 1898) Looss, 1899b, 616.—Staff., 1905, Apr. 11, 684.

PROSTHOGOMINUS Jahresb. ü. d. Leist. a. d. Geb. d. Veterinär-Med., v. 21 (1901) 1902, 248 (misprint for *Prosthogonimus*).

PROSTHOGONIMUS Luehe, 1899k, 539 (tod. ovatus); 1900, 555; 1901, 487.—Braun, 1901f, 561; 1901i, 56; 1902b, 67, 68, 69, 80, 85, 96 (syn. *Prymnoprion* Looss).—Looss, 1900, 608; 1902m, 834, 835.—Pratt, 1902, 889, 901.—Stiles, 1901, 183, 185.

1899: *Prymnoprion* Looss, 1899b, 628 (tod. ovatum).

1902: *Prosthogominus* Jahresb. ü. d. Leist. a. d. Geb. d. Vet.-Med., v. 21 (1901), 1902, 248, misprint.

1903: *Prostogonimus* Markow, 1903, 287–294, 295–297, figs. 1–7; 1903b, Aug. 14, 538; 1905b, July, 54.

anatinus Markow, 1902, 1903a, 287–298 (*Prostogonimus*), pl. 1, figs. 1–7 (in *Anas boschas* dom.); 1903b, 538.

cuneatus (Rud., 1809) Braun, 1901, 15–16, 17, fig. 2; 1901, 258–259; 1902b, 75–79, 80, 81, 82, figs. 44–45 (syns. *Fasc. ovata* Rud. (part), *Dist. ovatum* Rud. of Wedl, 1858; of Linst., 1878; of Auct.; *D. cuneatum* Rud.; *Prymnoprion anceps* of Looss, in *Machetes pugnax*; *P. ovatus* of Looss in *Passer domesticus*).—Wolffhüegel, 1906, 21 Nov., 21–25 (in hen's egg).—Reported for *Cygnus musicus*, *Corvus cornix*, *C. corone*, *Anas clangula*, *Fulica atra*, *Fringilla cœlebs*, *Grus cinerea*, *Otis tarda*, *Pavo cristatus*.

japonicus Braun, 1901, 17, fig. 3 (in hen's egg; Yedo, Japan); 1901, 258; 1902b, 81, fig. 46.

ovatus (Rud., 1803) [Luehe, 1899k, 539] Braun, 1901, 13–15, 17, fig. 1; 1901, 258; 1902b, 17, 69, 75, 76, 77, 78, 81, 83, 84, fig. 43 (syns. *Dist. ovatus* Rud.; *Fasc. ov. Rud.*).—Kowal., 1902d, [8] 26.—Markow, 1902, 292, 297 (*Prostogonimus*).—Reported for *Larus canus*, *Anas glacialis*, *Pica caudata*, *Corvus cornix*, *Sturnus vulgaris*.—T. h. *Corvus frugilegus*.

pellucidus (Linst., 1873) [Luehe, 1899k] Braun, 1901, 16–17, 18; 1901, 258–259; 1902b, 79, 80, 81, 82, fig. 45a (in *Numenius arquatus*, *Gallus domesticus*).

rarus Braun, 1901, 17–19, fig. 4 (in *Fulica atra*, Coll. Berlin; *Anas boschas*); 1901, 258, 259 (in *Anas clypeata*); 1902b, 22, 83, 84, 85, figs. 47, 48 (labelled *Dist. ovatum* in Berlin Coll. nos. 1615, 1423).

PROSTHOMETRA Looss, 1896b, 58–60 (felineus type by inclusion), no specific combinations made, but following species included: *Dist. geminum*, *simulans*, *amphileucum*, *complexum*, *choledochum*, *longissimum*, *crassiusculum*, *xanthosomum*, *felineum*; 1901, 194.—Stiles, 1901, 183, 185.

PROSTOGONIMUS Markow, 1903, 287, for *Prosthogonimus*.

PROTENTERON Staff., 1904, May 3, 494 (m. diaphanum) (*πρωτονος*=first; *έντερον*=intestine).

diaphanum Staff., 1904, May 3, 494 (t. h. *Ambloplites rupestris*; Canada).

PRYMNOPRION Looss, 1899b, 628–629 (*πρυμνός*=the undermost part; *ὁ πρίων*=the saw) (tod. ovatus); 1900, 608; 1902m, 839.—Braun, 1901i, 56; 1902b, 67, 68 (syn. of *Prosthogonimus*).—Ofenheim, 1900, 182.

anceps Looss, 1899b, 629, 722–723, fig. 41 (in *Machetes pugnax*; Apr., Marg, Egypt).—Braun, 1901, 13, 16; 1902b, 68, 69, 78 (Looss from *M. pug.*; syn. of *Prosthogonimus cuneatus*).

ovatus (Rud., 1803) Looss, 1899b, 629, 720–722, 723, figs. 39–40 (in *Passer domesticus*; Alexandria and Cairo).—Braun, 1901, 16; 1902b, 73, 78 (Looss, from *P. dom.*; syn. of *Prosthogonimus cuneatus*).

pellucidus (Linst., 1873) Looss, 1899b, 629, 723.

PSEUDAXINE Par. & Perugia, 1890, 11–12, 19 (m. trachuri) (Microcotylidae).—Braun, 1890a, 523, 540, 542, 546; 1893a, 890.—Gamb., 1896a, 73.—Mont., 1903, 336 (subf. Axininæ).—Pratt, 1900, 646, 653 (key), 657, fig. 41.

1879: Pseudocotyle Tasch., 1879, 65, misprint.

trachuri Par. & Perugia, 1890, 11–12, pl. 14, figs. 10–13 (in *Caranx trachurus*; Genoa).—Braun, 1890a, 542, 549, 550 (in *C. tr.*; Mittelmeer, Genua).—Par., 1894, 595.—Pratt, 1900, 657, fig. 41.

PSEUDOCODYLE Tasch., 1879, 49, misprint for Pseudocotyle.

PSEUDOCOTYLE Ben. & Hesse, 1865a, 4th appendix, 11–18 (m. squatinæ), Tristomidæ.—Ben., 1868, 28.—Brand., 1891d, 20.—Braun, 1890a, 411, 442, 451, 453, 455, 478, 482, 483, 484, 491, 492, 498, 511, 516, 517, 518, 523, 530; 1891d, 422; 1893a, 890; 1896b, 7.—Cerf., 1898b, 347, 356, 362.—Fraip., 1880c, 445; 1881b, 28.—Gamb., 1896a, 73.—Haswell, 1892b, 150; 1893e, 112, 114.—Hoyle, 1890, 539.—Ijima, 1884c, 638.—Jackson, 1888, 644, 646, 647, 653.—Kerbert, 1881a, 544, 572.—Mont., 1888a, 10, 13, 16, 20, 34, 37, 42, 43, 52, 53, 55, 56, 57, 58, 59, 60, 65, 66, 67, 88, 98; 1892, 108, 127, 128, 129; 1892, Oct. 7, 213 (gen. of Monocotylidae); 1893, 118; 1905, 69, 70 (=Microbothrium Olss.); 1903, 336 (subf. Pseudocotylinae; f. Monocotylidae).—Pratt, 1900, 646, 649 (key), 655, fig. 15.—St. Remy, 1891, 213, 214, 222.—Tasch., 1878, 176; 1878, 573; 1879, 65 (Pseudocotyle), 49 (Pseudocodyle), 44, 49, 50, 54, 55, 58, 60, 62, 64, 65, 66, 68; 1879, 236 (syn. Microbothrium Olss.).

1879: Pseudocodyle Tasch., 1879, 49, misprint.

1879: Peudocotyle Tasch., 1879, 65, misprint.

apiculatum (Olss., 1868) Braun, 1890a, 530, 547, 550.—Mont., 1893, 206.—Staff., 1904, May 3, 482 (in *Squalus acanthias*; Canada).—Type of Microbothrium, 1869.—Reported also for *Acanthias vulgaris*.

fragile (Olss., 1868) Braun, 1890a, 530, 547, 551 (in *Raja batis*; Nordl. Eismeer).—Staff., 1904, May 3, 482 (syn. of *Micropharynx parasitica* Jägers., type of *Mic*).

minor Mont., 1888a, 16, 52, 60, 66 (in *Scyllium*); 1890, 191, fig. 4; 1891, 1892, 116, 127, 128; 1905, 70.—Braun, 1890a, 530, 547, 552 (in *Sc. canicula*; Mittelmeer, Naples).—Type of Leptocotyle 1905.

squalinae Mont., 1892, 127, for *squatinæ*.

squatinæ Ben. & Hesse, 1865a, 4th appendix, 11–18, figs. 1–7 (in *Squatina angelus*; Ostende).—Ben., 1870, 13.—Brand., 1891d, 20.—Braun, 1889k, 622; 1890a, 420, 421, 424, 445, 449, 487, 530, 547, 552 (in *Squat. ang.*; North Sea, Mittelmeer, Naples); 1893b, 178.—Cerf., 1898b, 341.—Fraip., 1880c, 442.—Goto, 1891a, 162.—Ijima, 1884c, 638.—Juel, 1889, 36.—Kerbert, 1881a, 533.—Looss, 1885b, 5, 10.—Mont., 1888a, 7, 16, 19, 20, 23, 26, 32, 37, 39, 45, 52, 53, 66, 88; 1890, 420; 1892, 116, 127 (*squalinae*), 128.—Par., 1894.—Pratt, 1900, 655, 657, fig. 15.—Tasch., 1878, 176; 1878, 573; 1879, 20; 1879, 48–55, 57, pl. 3, fig. 2 (in *Squat. ang.*).—Ziegler, 1883, 545.

PSEUDOCOTYLINÆ Mont., 1903, 336 (f. Monocotylidae); 1905, 69, 78.

PSEUDODISCUS Sons., 1895, 8 (for *hawkesi*, *collinsi*, *ornatum*), also written as subg.; 1895, 184, 185, 186; 1896, 310.—Fischder., 1903h, 489.—Piana & Stazzi, 1900, 523.

cobboldi Montgomery, 1906, Feb. 12, 21 (in ponies; India).

hawkesi (Cobbold, 1875) Sons. [1895, 5], 1896, 310.—Piana & Stazzi, 1900, 519 [=Amphist. *hawkesi*].

ornatum (Cobbold, 1882) [Sons., 1895, 5].

(PSEUDODISCUS) as subg. of Amphist.—Sons., 1895, 187.

collinsi Cobbold.—Sons., 1895, 9, fig. 2; 1895, 187, fig. 2.

hawkesi Cobbold of Sons., 1895, 9, fig. 1.

hawkesi Cobbold, Sons., 1895, 187, fig. 1.

PSILOSTOMIDÆ Looss, 1900, 604.

PSILOSTOMINÆ Looss, 1900, 604.—Pratt, 1902, 888, 896 (includes: *Psilost.*, *Crepidostomum*, *Rhytidodes*, *Allocreadium*, *Calycodes*, *Azygia*, *Helicometra*, *Cotylotretus*; related genera: *Ptychogonimus*, *Orchepedum*).

PSILOSTOMUM Looss, 1899b, 573–574, 578, 579 (*ψιλόσ*=kahl) (tod. *platyurum*); 1900, 603, 604.—Braun, 1900, 232; 1901a, 33; 1901i, 56; 1901, 944; 1902b, 11, 15, 18, 19, 26, 147, 148.—Luehe, 1900, 489.—Pratt, 1902, 888, 897.—Stiles, 1901, 189.

PSILOSTOMUM—Continued.

brevicollis (Crep., 1829) Braun, 1902b, 12–14, fig. 9 (syns.: Dist. *brevicollis* Crep., 1829, 24; Duj., 1845a, 445; Mueller, 1897, 19; D. (Dicrocoelium) *brevicollis* Stoss., 1892, 35).

oxyurum (Crep., 1825) Braun, 1902b, 14, fig. 10.

platyurum (Mueh., 1896) Looss, 1899b, 574.

redactum Nicoll, 1906, 515, 525–527, pl. 13, figs. 9–10 (in *Gasterosteus aculeatus*; Scotland); 1907, 70, 73 (syn. of *Podocotyle atomon*).

simillimum (Mueh., 1898) Looss, 1899b, 574.

spiculigerum (Mueh., 1898) Looss, 1899b, 574.—Braun, 1902b, 15, 16, 155.

PTACUNELLA Massa, 1906, 58, for Placunella.

PTEROCOTYLE Ben. & Hesse, 1863, 1864, 96, 106 (*palmatum*=*inhærens*, type by inclusion; also type because it is only species figured).—Braun, 1890a, 477, 498, 516, 517, 522, 546.—Cerf., 1895h, 918, 920; 1896, 514, 515, 516.—Mont., 1888a, 7, 11, 16, 36, 66, 86, 89, 99; 1903, 336 (syn. of *Dactycotyle*).—Scott, T., 1901, 149.—Tasch., 1879, 240.

morhuæ Ben. & Hesse, 1863; 1864, 106–107 (in *Gadus morhua*).—Braun, 1890a, 492.—Cerf., 1895h, 922; 1896, 517; 1898a, 302.—Scott, 1901, 149–150, pl. 8, figs. 25–26 (in *Gadus callarias*, *G. merlangus*): 1905, 118 (in Scott, 1901, pl. 8).—Tasch., 1879, 246 (syn. of *Octobothrium morhuæ*).

palmata (Leuck., 1830) Ben. & Hesse, 1863, 1864, 107–108, pl. 11, figs. 1–13 (syns. *Octobothrium pal.* Leuck., *Octodactylus inhærens* Dalvell) (in *Gadus molva*).—Cerf., 1895h, 917 (syn. of *Octob. pal.*); 1896, 513.—Scott, 1901, 149, pl. 8, fig. 27 (in *Molva molva*); 1905, 118 (in Scott, 1901, pl. 8).—Tasch., 1879, 246 (to *Octob.*).

PTERONELLA Ben. & Hesse, 1863; 1864, 94–95 (*m. molvæ*), fam. *Udonellidés*.—Braun, 1890a, 410, 446, 511, 516, 517, 523, 531, 532; 1893a, 890.—Gamb., 1896a, 73.—Mont., 1888a, 10, 86, 88, 98; 1892, Oct. 7, 213 (gen. of *Udonellinæ*); 1903, 336 (subf. *Udonellinæ*).—Pratt, 1900, 646, 649 (key), 655, fig. 14.

molvæ Ben. & Hesse, 1863; 1864, 94–95, pl. 8, figs. 20–23 (in *Lota molva*).—Braun, 1890a, 409, 418, 532, 548, 550, 551 (in *Lota molva*; Atlantic Ocean).—Linst., 1889a.—Pratt, 1900, 655, 657, fig. 14.—Tasch., 1878, 573 (to *Udonella*).

PTYCHOGONIMUS Luehe, 1900, 489 (*m. megastomus*).—Looss, 1901, 206; 1902m, 829, 830.—Pratt, 1902, 888 (related to *Psilostominæ*), 897, 900.

megastomus (Rud., 1819) Luehe, 1900, 489; 1901, 483.—Fischder., 1903h, 548.

PYCNOPORUS Looss, 1899b, 551, 610–611, 612, 618, 619 (*πυκνός*=firm, thick, strong, because of acetabulum) (tod. heteroporus); 1901, 199, 200.—Pratt, 1902, 889, 903.—Staff., 1903, 828.—Stiles, 1901, 197.

“*acetabularis* Looss, 1896,” for *acetabulatus* Looss, 1899, in Braun, 1900, 388.

acetabulatus Looss, 1899b, 611, 717–719, fig. 36 (in *Vesperugo kuhli*; Egypt): 1901, 205; 1907, Mar. 5, 481 (in *Vesp. k.*; Cairo, Egypt), 488.—Braun, 1900, 227, 228.

heteroporus (Duj., 1845a) Looss, 1899b, 611.—Braun, 1900, 227, 228.—Staff., 1905, Apr. 11, 692–693.

inversus Looss, 1907, Mar. 5, 486–487, figs. 6 a–b (in *Vesperugo kuhli*; Cairo, Egypt).

PYELOSOMUM Looss, 1899b, 667 (*ῥή πυέλως*=Trog, Wanne, Mulde) (*m. cochlear*); 1902m, 581, 582, 584, 586, 590, 593, 597, 600, 601, 602, 609, 611, 612, 613 (diagnosis), 614.—Braun, 1901b, 50.—Pratt, 1902, 890, 910.

cochlear Looss, 1899b, 667, 773–774, fig. 83 (in *Chelonia mydas*; Egyptian coast): 1902m, 416, 578–580, pl. 27, figs. 102–104; pl. 32, fig. 181: 593, 613.—Braun, 1901a, 53.

PYGIDIOPSIS Looss, 1907, 488 (*m. genata*), Heterophyiden.

genata Looss, 1907, Mar. 5, 488–490, figs. 7 a–c (in *Pelecanus onocrotalus*; Cairo, Egypt).

PYGORCHIS Looss, 1899b, 587 (*m. affixus*) (*ῥή πυγῆ*=der Steiss).—Braun, 1902b, 31, 37.—Ofenheim, 1900, 182.—Pratt, 1902, 888, 898.

affixus Looss, 1899b, 587, 596, 702–703, fig. 25 (in *Corvus cornix*; Marg, Galiub, Gizeh, Cairo; *Falco tinnunculus*; Galiub; *Circus æruginosus*; Nil, Adelenin-sel; *Recurvirostra avocetta*).—Braun, 1901, 948; 1902b, 147.

- RAJONCHOCOTYLE Cerf., 1899a, 347, 373, 420, 440, 445, 446, 455-456 (type batis, designated by Cerf. in correspondence with Stiles, Jan. 21, 1907).—Mont., 1903, 336 (subf. Onchocotylinæ).
- alba* Cerf., 1899a, 377, 381, 383, 407, 408, 413, 417, 420, 433, 437, 438, 444, 446, 450, 463-464, pl. 18, figs. 5, 6, 8, pl. 19, fig. 9, pl. 20, figs. 1, 2, 3, 6, 7, pl. 21, figs. 1, 4, 8, 11, 13, 14, 15 (in *Raja alba* Lacep.).
- batis* Cerf., 1899a, 376, 381, 383, 442, 451, 462-463, pl. 19, figs. 11, 12, pl. 21, fig. 12 (syn. Onchocotyle appendiculata Olss., 1867 and 1876) (in *Raja batis*).
- prenanti* (St.-Remy, 1890), Cerf., 1899a, 377, 381, 383, 447, 464, pl. 18, figs. 10, 11, pl. 19, fig. 10, pl. 20, fig. 4 (syns. Onchocotyle appendiculata Kuhn of Sons., *O. borealis* Ben. of Stoss., 1885, *O. prenanti* St.-Remy, 1890) (in *Raja oxyrinchus*).
- REDIA Fil., 1837a, 336-337 (m. *gracilis*): 1854a, 6.—R. Bl., 1888a, 542, 551, 553, 554, 555, 556, 557, 558, 559, 604, 645.—Braun, 1892a, 775; 1893a, 884.—Burm., 1856a, 245.—Dies., 1850a, 287, 301; 1855a, 379 (cf. *sporocerca*), 380, 383, 393; 1858d, 240 (cf. *sporotherium*).—Goldb., 1855a, 16.—Hoyle, 1890, 535.—Jackson, 1888, 644, 651, 652, 653.—Pag., 1857, 10.—Wagener, 1866, in 145-150, figs. 1-11.—Ward, 1903, 863, 865.
- gracilis* Fil., 1837a, 336-337, figs. 6-7 (in *Planorbis nitidus*: Italy); 1854a, —, pl. 1, fig. 4.—Dies., 1850a, 301; 1855a, 394 (syn. of *Diplocotyle mutabilis*).—Moul., 1856a, 95 (syn. of *Cerc. diesingii*), 106, 107 (syn. of *Cerc. amphistomi subclavati*).—Pag., 1857, 25.—Par., 1894, 165.
- RENICOLA Cohn, 1904, 235 (tod. *pinguis*).
- pinguis* (Mehlis, 1846) Cohn, 1904, 232-235, figs. 2-3 (syn. *Monost. pingue* Mehlis, 1843; Braun, 1893a, 915, in *Podiceps cristatus*; Brand., 1892, 504-511).
- RENIFER Pratt, 1902, 888, 899; 1903, 25 (tld. *ellipticus*).
- ellipticus* Pratt, 1903, 25-28, 29, 34, pl. 4, fig. 1 (in *Heterodon platyrhinus*: North America).—Stafl., 1905, Apr. 11, 691.
- elongatus* Pratt, 1903, 25, 28-30, pl. 4, fig. 2 (in *Heterodon platyrhinus*: North America).—Seely, 1906, 253.—Stafl., 1905, Apr. 11, 691 (thinks this a *Lechiorchis*).
- solitarius* (Looss, 1899) Pratt, 1903, 25.
- variabilis* (Leidy, 1856) Pratt, 1903, 25, 31-34, pl. 4, fig. 5.
- zschokkei* (Volz, 1899) Pratt, 1903, 25, 28.
- RENIFERINÆ Pratt, 1902, 888 (contains *Styphlodora*, *Ochetosoma*, *Renifer*, *Oistosomum*, *Astiotrema*).
- RHIPIDOCOTYLE Dies., 1858e, 313, 361-362 (type probably *gracilescens*).—Hausmann, 1897b, 34.—Mont., 1888, 92.—Odhn., 1905, 296.—Ziegler, 1883, 538.
- gracilescens* (Rud., 1819) Dies., 1858e, 361 (in *Lophius piscatorius*: Apr., Trieste; Mar., Pisa).—Linst., 1878a, 223 (includes *Monost. isabellinum* Ratzell).—Stoss., 1898, 61.—Tennent, 1906, 638.—Reported also for *Lota molva*, *Merlangus vulgaris*, *Gadus aeglefinus*, *G. melanostomus*.
- minima* (Wagener, 1852) Dies., 1858e, 361-362 (in *Trigla microlepidota*).—Linst., 1878a, 227.—Tennent, 1906, 638 (minimum).
- RHOPALIADÆ Looss, 1899b, 543.
- RHOPALIADINÆ Braun, 1901.—Looss, 1902m, 839.
- RHOPALIAS Stiles & Hass., 1898a, 82, 93, 96 (= *Rhopalophorus* Dies., 1850a [not *Ropalophorus* Westwood, 1840, hymenopterous; not *Rhopalophorus* Agassiz, 1846, *Rhopalophora* Serv., 1834] renamed) (tod. *coronatus*).—Braun, 1900, 28; 1900d, 27-29; 1901e, 318, 320, 324, 326-329 (syn. *Rhopalophorus*); 1903, v. 2, 23.—Looss, 1899b, 542, 581.—Pratt, 1902, 888 (related to *Echinostominae*), 894.
- baculifer* Braun, 1900d, 28 (in *Didelphys palmata*; Brazil); 1901e, 325-326, pl. 19, fig. 1.
- coronatus* (Rud., 1819) Stiles & Hass., 1898a, 93.—Braun, 1900, 28, 29; 1901e, 320-323, 324, 326, 328, pls. 19, 20, figs. 2, 4, 11 (syns. *Dist. cor.* Rud., *Rhopalophorus cor.* Dies., *Echinost. cor.* Stoss.).—Reported for *Didelphys cancrivorus*, *D. nudicaudata*, *D. palmata*, *D. quica*, *D. virginiana*.
- horridus* (Dies., 1850a, 400) Stiles & Hass., 1898a, 93.—Braun, 1901e, 323, 325, pl. 19, fig. 3 (syns. *Dist. coronatus*; *Rhopalophorus-horr.* Dies.).—Reported for *Didelphys nudicaudata*, *D. philander*.
- RHOPALOCERA Fil., 1854a, 6 (for *Rhopalocerca*).—Burm., 1856a, 250.

- RHOPALOCERCA** Dies., 1850a, 286, 293 (m. tardigrada=Dist. duplicatum renamed); 1855a, 379, 384; 1858d, 270.—Burm., 1856a, 250 (Rhopalocera).—Fil., 1854a, 6 (Rhopalocera).—Goldb., 1855a, 15.—Moul., 1856a, 121, 123.
- tardigrada* Dies., 1850a, 293–294 (Dist. duplicatum Baer, 1827b, renamed); 1855a, 378, 380, 384 (in Anodonta ventricosa, A. anatina); 1858d, 241, 242, 271–272 (syns. Dist. dup. Baer, Cerc. dup. Moul.) (in Anodonta ventricosa; Regiomontii; A. anatina, A. cygnea).—Jacobson, —, 301, pl. 8, figs. 1–4 (syn. Dist. dup.).—Leidy, (1858) 1859, 110; 1877, 202.—Looss, 1894a, 63.—Pag., 1857, 6.—Ziegler, 1883, 540.
- RHOPALOPHORUS** Dies., 1850a, 288, 400 (not Ropalophorus Westwood, 1840; not Rhopalophorus Agassiz, 1846, for Ropalophorus, 1840; not Rhopalophora Serv., 1834) (tld. coronatus); 1855, 172; 1858e, 312, 357.—Braun, 1892a, 568, 569, 576, 595; 1893a, 879, 880, 886, 890, 893, 895, 908, 911, 918; 1900, 28; 1900h, 3; 1901e, 318, 319.—Carus, 1863, 479.—Gamb., 1896a, 73.—Goldb., 1855a, 17; 1899b, 536, 538, 542.—Mont., 1888a, 8, 11, 92, 105; 1892, Oct. 7, 214 (gen. of Distominæ); 1893, 82, 153, 154, 155.—Stiles, 1901, 172.—Stiles & Hass., 1898a, 93 (renamed Rhopalias, type coronatus).
- coronatus* (Rud., 1819a) Dies., 1850a, 400; 1855, 172–173, pl. 1, figs. 6–11; 1858e, 357.—Braun, 1893a, 911 (in Didelphys cancrivorus, D. myosurus, D. palmata, D. quica; Brazil); 1901e, 319, 320, 323, 324, 325.—Cobbold, 1879b, 432.—Kaiser, 1893a, 93.—Mont., 1893, 83.
- horridus* Dies., 1850a, 400 (in Didelphys myosurus, D. philander; Brazil); 1855, 173, pl. 1, figs. 12–16; 1858e, 357.—Braun, 1892a, 583; 1893, 911 (in Did. my., D. phil.; Brazil); 1901e, 319, 320, 323, 324.—Cobbold, 1879b, 432.—Mont., 1893, 83.—Stiles & Hass., 1898a, 93.
- RHYTIDODES** Looss, 1901l, 565 (tod. gelatinosus); 1902m, 451 (diagnosis), 839.—Odhn., 1905, 296.—Pratt, 1902, 888, 897.
- gelatinosus* (Rud., 1819) Looss, 1901l, 563–565 (in Thalassochelys corticata Looss; Egypt); 1902m, 414, 416, 441, 445–456 (includes: Dist. gelat. Rud., 1819a, 386; Sons., 1890, 43; 1893; Stoss., 1898, 43; Braun, 1899, 716; 1901, 9, figs. 6, 12, pl. 1, fig. 9, pl. 2; Looss, 1899b, 579), 458, 460, 462, 463, 870, pl. 22, figs. 19–24.—Heymann, 1905, 82, 83, 87.
- SACCOCELIUM** Looss, 1902h, 134, 135 (tod. obesum).
- obesum* Looss, 1902h, 135, 140–141, 142, figs. 9–11 (in Mugil auratus, M. cephalus, M. chelo; Triest).
- tensum* Looss, 1902h, 141–142, figs. 12–13 (in Mugil chelo; Triest).
- SAPHEDERA** Looss, 1902m, 732, 839 (Macrodera, 1899, renamed) (type naja).—Staff., 1905, Apr. 11, 691.
- 1899: Macrodera Looss, 1899b, 603 (tod. naja) [not Macroderes ante 1882].
- naja* (Rud., 1819) Looss, 1902m, 732.
- SCAPHANOCEPHALUS** Jægers., 1903a, 1–16 (m. expansus), σκαπάνη=Spaten; κεφαλή=head.
- expansus* (Crep., 1842) Jægers., 1903a, 1–16, pl. 1, figs. 1–5 (in Pandion haliaëtus; Tor on Red Sea); 1904a, 279; 1904, 16 pp., 1 pl., 3 figs., Distomidae.
- SCAPHIOSTOMUM** Braun, 1901g, 897 (m. illatabile); 1902b, 129, 133, 134.—Pratt, 1902, 889, 907 (key).
- illatabile* Braun, 1901g, 897 (in Falco nitidus Lath.; Brazil); 1902b, 134–136, fig. 80.
- SCHISTOSTOMA** Colloridi, 1891a, 854, for Schistosoma.
- SCHISTOMOSUM** Cummins & Dupaquier, 1907, Jan., 496, for Schistosoma.
- SCHISTOSOMA** Weinland, 1858 [prior to Sept. 30], 58, 87 (m. hæmatobium) (not Schistosoma Brady, 1877, arachn.).—R. Bl., 1895, 730 (Schistosomum).—Braun, 1893a, 894, 912; 1901, 562; 1901, 947; 1902b (Schistosomum), 140, 142, 144; 1903, 3 ed., 168; 1906, 176 (syns. Gynæcophorus, Bilharzia, Thecosoma).—Catto, 1904, 1499.—Christopher, 1905, Aug. 15, 259 (a peculiar egg of).—Christopher & Stephens, 1905, Nov. 11, 1289 (peculiar egg); 1905, 2341; 1905, Nov. 30, 1944; 1905, Aug. 26, 609.—Cobbold, 1879b, 39; 1885a, 498 (syn. of Bilharzia).—Colloridi, 1891a, 854 (Schistosoma).—Darr, 1902, 660.—Huber, 1896, 580 (syn. of Bilharzia hæmatobia).—Katsurada, 1904b, 1237–1249 (Japanese); 1904c, 298–305 (Japanese); 1904, 160; 1904e (schistosomiasis in Japan); 1904g, Oct. 31, 126–134; Nov. 30, 135–148 (schistosomiasis in Japan); 1905a, Jan., 14–15.—Leuck., 1863a, 617.—Looss, 1895, 3; 1899b, 543, 656, 657, 658–659.—Moniez, 1896, 154–155.—Montgomery, 1906, 15–46, 2 pls.; 1906, Feb.

SCHISTOSOMA—Continued.

- 12, 18, 21 (*Schistosomum*).—Mont., 1896, 163.—Poche, 1907, 126.—Pratt, 1902, 889, 907.—Scheube, 1905, 150–155; 1905, 29 Aug., 1701.—Simon, 1897, 99.—Stiles, 1898a, 23, 27, 58, 63; 1903, 77.—Stiles & Hass., 1898a, 90, 93–94, 95, 98 (syns. *Gynæcophorus*, *Bilharzia*, *Thecosoma*) (type *Dist. hæmotobium*).—Ward, 1903, 224; 1903, 871–872.
- 1858: *Gynæcophorus* Dies., 1858, 356 (*hæmatobius*) later than Oct. 21, 1858.
- 1859: *Bilharzia* Cobbold, 1859, 364 (*hæmatobia*).
- 1860: *Thecosoma* Moquin-Tandon, 1860, 342 (*hæmatobium*).
- 1877: *Bilhartzia* Sons., 1877, 652 for *Bilharzia*.
- 1891: *Schistosoma* Colloridi, 1891a, 854, misprint.
- 1895: *Schistosomum* R. Bl., 1895, 40, for *Schistosoma*.
- 1905: *Schistosoma* Schwarz, 1905, 31 Mar., 236, misprint.
- 1906: *Schistosomum* Montgomery, 1906, Feb. 12, 21, misprint.
- 1907: *Schistosomum* Cummins & Dupaquier, 1907, Jan., 496.
- bomfordi* Montgomery, 1906, 143–147, pl. 1, figs. 1–4, pl. 2, fig. 1 (in *Bos indicus*; India).
- bovis* (Sons., 1876) R. Bl., 1895b, 101–104, fig. 7.—Braun, 1902b, 143 (syn. *Bilharzia crassa*).—Gomy, 1897a, 377.—Looss, 1905m, 281.—Moniez, 1896, 154.—Montgomery, 1906, Feb. 12, 17 (in cattle; Egypt; in sheep, Sicily), 18, 19, 43, 44; 1906, 138 (syns. *Bilh. cr.*, *B. bovis*).—Rail., 1899, 788.—Stiles, 1898a, 23, 58, 60, 61, 62, 140, figs. 45, 46, 47.
- cattoi* R. Bl., in Catto [1904, Sept., 17, 663; 1904, Oct. 8, 710; 1904, Sept. 29, 1480; 1904, Nov., 15; 1904, Nov. 19, 1411; 1904, Nov. 26, 1499;] 1905, Jan. 7, 70–73, 9 figs. (in *Homo*); 1905, Jan. 7, 11–13, figs. 1–9 (in *Homo*; Prov. of Fukien, China); 1905, Jan. 28, 202; 1905, Jan. 19, 114; 1905, Mar. 1, 70–74; 1905, Mar. 31, 236; 1905, 179–189; 1906, Jan. 5, 617.—Brit. Med. J., Lond., 1905, v. 1, 27–28.—Crimp, 1905, Jan. 1, 67–68 (pathology); 1906, Apr. 22, 219.—Looss, 1905, 94; 1905m, 280.—J. Trop. Med., Lond., 1905, Apr. 1, 105.—Montgomery, 1906, Feb. 12, 18 (syn. of *S. japonicum*), 19.—Scheube, 1905, Apr., 150–155.—Stiles, 1905q, 821–823 (syn. of *japonicum*); 1905s, 1809; 1905t, 827.
- crassum* (Sons., 1877) Looss, 1899b, 657, 658.
- hæmatobium* (Bilharz, 1852) Weinland, 1858, 87; 1859, 281.—R. Bl., 1888a, 636 (syn. of *Bilharzia hæmat.*); 1895, 740–744, fig. 80; 1895, 40–101, figs. 2–6; 1900, 488.—Bourel-Roncier, 1888a, 101ff.—Braun, 1902b, 144; 1906, 176–181, figs. 109–113 (syns. *Dist. hæm.*, *D. capense*), 285.—Catto, 1904, 73; 1905, 71, 72; 1905, Jan. 7, 12.—Darr, 1902, 678.—Higgins, 1906, Mar. 24, 881–882 (in Canal Zone).—Katsurada, 1904, Dec., 148, 149, 150, 153, 154, 155, 156, 157.—Kowal., 1904, (10), 25 (in *Homo*; Kair).—Letulle, 1905e, 329–439, pls. 1–2, figs. 1–16; 1905c, 607–609.—Looss, 1896b, 158; 1899b, 657, 658, 751, 752; 1901, 27; 1905m, 281, 282, 284.—Moniez, 1896, 86, 154, 155–173, fig. 29; 1896, 86, to (*Bilharzia*).—Mont., 1896, 162, to (*Bilharzia*).—Montgomery, 1906, 139; 1906, Feb. 12, 16, 18, 31, 36, 40, 41, 43.—Rail., 1899, 787.—Roger, 1901, 94, 95.—Shaw, 1901, 1027.—Shipley, 1905, v. 6 (1), 4.—Stiles, 1898a, 23, 57, 58, 59, 60, 137, 138, 140, figs. 41, 42, 43, 44, 48; 1902, 40; 1902, 204; 1903, 8, 84.—Ward, 1895, 253 (syn. of *Gynæcophorus hæmatobius*), 328 (in *Homo*); 1903, 407; 1903, 863, 864, 872 (syns. *Dist. hæm.*, *Gynæcophorus hæm.*, *Bilh. hæm.*, *Thecosoma hæm.*, *Bilh. capensis*).—Yamagiwa, 1905, v. 6 (3), 2 pls.
- indicum* Montgomery, 1906, 139; 1906, Feb. 12, 44, 45 (in donkey; India).
- japonicum* Katsurada, 1904e, Aug. 3, 21 (in *Felis catus dom.* and *Homo*; Japan); 1904f, Dec., 147–160, pl. 7, figs. 1–10 (in *Felis domestica*; *Homo*; Japan, Prov. of Yamanishi); 1904b, 1237–1249; 1904c, 298–305; 1904d, 1–22; 1904g, 126–134, 135–148; 1905a, 14–15; 1905, Jan. 31, 236; 1905, Apr. 1, 108–111.—Beyer, 1905, Sept. 10, 578–579 (case in Asia); 1905, 4 pp.—Braun, 1906, 181–186, figs. 114–117 (syn. *Sch. cattoi*).—[Catto, 1904, Sept. 19, 1411.]—Inouye, 1903, 131–132.—[Kurimoto, 1893, 20 Nov.]—Logan, 1905, v. 19, 243–245 (Hunan Province); 1906, Oct. 1, 294–296, figs. 1–3.—Looss, 1905m, 280–285; 1905n, 1362; 1906, Feb., 31; 1906, May 1, 132.—Montgomery, 1906, 140; 1906, Feb. 12, 18 (man and cat), 19, 40, 43, 44 (syn. *S. cattoi*).—Scheube, 1905, Apr., 150–155.—Stiles, 1905q, 821–823 (syn. *cattoi*); 1905r, 7 pp.; 1905s, 1809; 1905t, 827; 1905bb, 854 (in Philippines); 1905, v. 39 (3), 280–285.—Woolley, 1906, 83–89, 3 pls., figs. 1–5 (in Philippines); 1906, Feb., 32–35; 1906, Apr. 21, 260; 1906, July 16, 530–531.

SCHISTOSOMA—Continued.

- kowalewskii* (Par. & Ariola, 1896) Rail., 1899, 788, to Bilharziella by Looss, 1899b.
magnum (Cobbold, 1859) Rail., 1899, 788.—Looss, 1899b, 658.
mansonii Sambon, 1907, June, 365–366 (in Homo; Africa).
polonicum (Kowal., 1895) Rail., 1898, 412; 1899, 788.—Looss, 1899b, 658, type of Bilharziella.—Reported for *Anas boschas*, *A. boschas dom.*, *A. acuta*, *A. crecca*, *A. querquedula*, *Ardea cinerea*, *Mergus albellus*.
 [reflexum a term in teratology; it has no status in nomenclature.]
spindalis Montgomery, 1906, 147–150, pl. 2, fig. 2 (in *Bos indicus*; India).
- SCHISTOSOMIASIS Toyama, 1905 (X, 26), 1739, medical term, name of the disease.—Miura, 1905a; 1906a, 46.—See also Bilharziosis.
- SCHISTOSOMIDÆ Looss, 1899b, 542, 543, 659 (type *Schistosoma*: contains also *Kœllikeria*, *Bilharziella*).—Braun, 1903, 3. ed., 168; 1906, 176.—Catto, 1905, (I, 7), 13.—Luehe, 1901, 488.—Montgomery, 1906, Feb. 12, 18, 19.—Pratt, 1902, 889, 907 (genera: *Schistosoma*, *Bilharziella*, *Kœllikeria*).—Shipley, 1905, v. 6 (1), 4.—Ward, 1903, 864, 865.
- SCHISTOSOMINÆ Stiles & Hass., 1898a, 90, 94, 95, 98.—Looss, 1901, 196.—Luehe, 1901, 175.—Stiles, 1898a, 22, 23, 58.
- SCHISTOSOMUM R. Bl., 1895, 40, for *Schistosoma*, q. v.
- SCHISTOSTOMA Schwarz, 1905, 31 Mar., 236, misprint for *Schistosoma*.
- SCHISTOSOMUM Montgomery, 1906, Feb. 12, 21 (for *Schistosoma*).
- SCHISTURUS Rud., 1809a, 8, 31 (m. *paradoxus*), 32; 1810a, 257–258.—Audouin, 1829, 408.—Blainv., 1824a, 513 ‘genre fort douteux établi par M. Rudolphi sur un animal incomplètement décrit par Redi’.—Deslongchamps, 1824uu, 674; 1829b, 238.—Dies., 1850a, 331 (syn. *Distomum*).—Looss, 1899b, 527, 528; 1902m, 721, 764, 765, 778.—Luehe, 1900, 492.—Stiles, 1901, 195, 196.—Stiles & Hass., 1898a, 92, 94 (?syn. of *Podocotyle*).
- paradoxus* Rud., 1810a, 257–258, pl. 12, fig. 4 (in *Tetrodon mola*; Europe); 1819a, 118 (syn. of *Dist. nigroflavum*).—Audouin, 1829, 408.—Dies., 1850a, 394 (syn. of *D. nig.*, in *Orthogoriscus mola*; Naples).—Looss, 1899b, 528; 1902m, 721, 764.—Luehe, 1900, 492.—Stiles, 1901, 196.—Stiles & Hass., 1898a, 92, 93.
- (SCHIZOCERCA) subg. of *Cercaria*.—Dies., 1858d, 264–265.
dichotoma (Mueller, 1855) Dies., 1858d, 265 (free; Nice).
fissicauda (La Valette, 1855) Dies., 1858d, 265 (in *Lymnæus stagnalis*; Berlin).
gracilis (La Valette, 1855) Dies., 1858d, 264–265 (in *Planorbis corneus*; Berlin).
- SINISTROPORUS Staff., 1904, May 3, 484–485 (tld. simplex designated in letter from Staff.); sinister, left; *πόρος* = pore.
productus Staff., 1904, May 3, 485 (in *Hemitripteris americanus*; Canada) (productus, lengthened).
simplex (Rud., 1809) Staff., 1904, 484–485 (in *Acanthocottus scorpius*, *Gasterosteus aculeatus*, *Hemitripteris americanus*, *Phycis chuss*, *Salmo salar*, *Scomber scombrus*, *Sebastes marinus*).
- SODALIS Kowal., 1902d, 27 (m. *spathulatus*), 28 (10).
spathulatus (Rud., 1819) Kowal., 1902, 27 (9).
- SOLENOCERCA Dies., 1855a, 380, 383 ‘Der abgeworfene Sporenschwanz ist zuweilen von einem Schlauche oder einer Röhre durchgezogen (*Solenocerca*, — *Redia Filippi*).’²
- SOLENOCOTYLE Dies., 1850a, 289, 420 (m. *chiajei*); 1858e, 314, 374.—Ben. & Hesse, 1864, 84.—Braun, 1890a, 518.—Goldb., 1855a, 19.—Mont., 1888a, 89.
chiajæ Tasch., 1879, 251, for *chiajei*.
chiajæ Mont., 1888a, 89, for *chiajei*.
chiajei Dies., 1850a, 420 (*Polyst. loliginis Chiaje*, 1823, renamed) (in *Loligo vulgaris*; Naples); 1858e, 374.—Mont., 1888a, 89 (*chiajæ*) Tasch., 1879, 251 (*chiajæ*).
- SPATHIDIUM Looss, 1899b, 605 (*ῥ σπάθην* = spade) (tod. folium) [not *Spathidium* Duj., 1841a]; 1900, 605; 1901b, 202, 222 (*Phyllodist.*); 1902m, 476.—Braun, 1901b, 9.—Odh., 1902, 65.—Osborn, 1903, 257 (syn. of *Phyllodist.* Braun, 1899).
cymbiforme (Rud., 1819) Looss, 1899b, 605.—Type of *Plesiochorus* 1901.
folium (Olfers, 1816) Looss, 1899b, 605.—See also *Rhopalocerca*.
patellare (Sturges, 1897) Looss, 1899b, 605.

SPBYRANURA Mont., 1888a, 11 (for Sphyranura).

SPECIES.—Looss, 1902, 779–794, variation of and conception of, among trematodes.

SPELOTREMA Jægers., 1901b, Dec. 31, 982 (tod. pygmæum); 1903a, 14, 15.—Looss, 1902m, 706, 824 (type pygmæum).

claviforme (Brand., 1888) Nicoll, 1907, 247, 248, 249, 254–256 (in *Aegialitis hiaticula*, *Pelidna* (*Tringa*) *alpina*).

excellens Nicoll, 1907, 247, 248–251, 252, 253 (syn. *S. simile* Jægers.) (in *Larus argentatus*).

feriatum Nicoll, 1907, 247, 248, 251–253 (in *Aegialitis hiaticula*, *Hæmatopus ostralegus*, *Pelidna* (*Tringa*) *alpina*, *Totanus calidris*, *Vanellus vanellus*).

pygmæum (Levin., 1881) Looss, 1902m, 785, 786, 809, 854.—Nicoll, 1907, 247, 248, 249, 250, 251, 253, 254, 255, 256 (in *Oidemia fusca*, *O. nigra*).—Odhn., 1905, 314–318, figs. 1, 2 (syns. Dist. pyg., *Levinsonia pyg.*) (in *Larus* sp.; west coast of Sweden).

simile (Jægers., 1900) Looss, 1902m, 706, 786, [809], 854.—Nicoll, 1906, 522 (*similis*) (to *Levinsonia*).—Odhn., 1905, 315, 316, 317, fig. 2b.

similis Nicoll, 1906, 522 (to *Levinsonia*), for *simile*.

SPHÆROSTOMA Rud., 1809a, 38, 39 (type by virtual tautonymy *globiporum*) [nec *Sperosoma* Køler; nec *Sphærodoma* Keyes].—Darr, 1902, 655, 661.—Looss, 1899b, 527, 571, 595, 646, 647, 648–649; 1902m, 757, 758, 769, 830, 831.—Stiles, 1901, 167, 179, 188, 191, 192, 193, 194, 195, 200.—Stiles & Hass., 1898a, 94–95, 97 (type *globiporum*=*bramæ*).—Stoss., 1902, 582.

1902: *Sphærostomum* Looss, 1899b, 648, for *Sphærostoma*.

globiporum (Rud., 1802) Looss, 1899b, 595, 649; 1902m, 654, 747, 765.—Ssinitzin, 1905, 113–121; 1906, 685 (larva is *Cerc. micrura*).—Stiles, 1901, 194.

SPHÆROSTOMUM Looss, 1899b, 648–649 (for *Sphærostoma* Rud.).

SPHYRAMURA Mont., 1888a, 36 (for Sphyranura).

SPHYRANNURA Mont., 1888a, 49 (for Sphyranura).

SPHYRANURA R. Wright, 1879, 15–20, pl. 1, figs. 12–14, 54–75 (*m. osleri*).—Bettend., 1897a, 8, 38; 1897, 312, 342.—Brand., 1891d, 15; 1898a, 214 [22].—Braun, 1889k, 622; 1890a, 413, 415, 433, 434, 435, 437, 440, 442, 445, 451, 453, 457, 462, 463, 466, 469, 470, 481, 482, 483, 487, 491, 492, 511, 517, 523, 538, 540, 546; 1893a, 890.—Gamb., 1896a, 56, 73.—Goto, 1891c, 103.—Haswell, 1892a, 458, 460; 1892b, 149; 1893e, 112, 113, 114, 144, 145.—Hoyle, 1890, 539.—Lander, 1904a, 16, 17.—Looss, 1894, 23, 24; 1894a, 136, 203.—Mont., 1888a, 10, 11 (*Spyranura*), 15, 16, 23, 34, 36 (*Sphyramura*), 37, 46, 47, 48, 49, 50, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 64, 65, 66, 67, 89, 100; 1892, Oct. 7, 213 (gen. of *Polystominae*); 1893, 18, 39, 41, 111, 118; 1903, 336 (subf. *Dicotylinæ*).—Pratt, 1900, 646, 651, 656, 659, fig. 22 (*Spyranura*).

1888: *Spyranura* Mont., 1888a, 11, misprint.

1888: *Sphyranura* Mont., 1888a, 49, misprint.

1888: *Sphyramura* Mont., 1888a, 36, misprint.

osleri R. Wright, 1879, 66–71, pl. 1, figs. 13–14, in *Necturus* (*Mesobranchus*) *lateralis*: ? Canada.—Braun, 1890a, 410, 418, 422, 424, 425, 430, 449, 454, 456, 468, 490, 540, 548, 552; 1891a, 53.—Crety, 1893a, 384.—Goto, 1891a, 160.—Haswell, 1892b, 150, 151; 1893e, 97, 99, 115.—Kowal., 1898h, 158 (55).—Lander, 1904a, 16.—Looss, 1894, 21; 1894a, 234.—Mont., 1888a, 8, 13 (*oslerii*), 20 (*Spyranura*), 25, 26, 27, 29, 32, 34, 35, 37, 39, 41, 44, 47, 48, 49 (*Sphyranura*), 56; 1891, 1892, 99, 104; 1893, 16, 39, 112.—Pratt, 1900, 656, 657, 659 (*key*) (*Spyranura*), fig. 22.—Staff., 1900, 405; 1905, 682 (in *Necturus maculatus* Raf.; Canada).—Wright & Macallum, 1887, 1–48, pls. 1–48.

oslerii Mont., 1888a, 8, 13, for *osleri*.

SPOROCERCA Dies., 1855a, 379–380, “Der abgeworfene Schwanz der Cercarien ist somit ein Sporenbehälter, welcher von Baer als *Sporocystis*, von Siebold als *Keimschlauch*, von Steenstrup als *Amme*, von Beneden als *Scolex* und von Filippi als *Redia* beschrieben und abgebildet wurde. Ich werde mich in der Folge dafür des Collectivnamens Sporenschwanz (*Sporocerca*) bedienen.”

SPOROCYSTIDES Baer.—Dies., 1858d, 240, 242.

SPOROCYSTIS Baer.—Braun, 1892a, 775.—Burm., 1856a, 245.—Dies., 1855a, 379 (cf. *sporocerca*); 1858d, 270 (cf. *sporonema*).—Fil., 1854a, 6.—Pag., 1857, 10.—Wagener, 1866, in 145–150, figs. 1–11.

SPOROCYSTOPHORA Fil., 1856.

SPOROCYSTOPHORÆ Fil., —.—Dies., 1858d, 240, 242.

SPORONEMA Dies., 1855a, 380, "Bei allen zwei schwänzigen [Cercaria] hingegen wächst die Spitze des Sporenschwanzes in eine fadenförmige unverästelte oder verästelte Röhre aus, welche stellenweise in Knoten oder Kugeln anschwillt, die neue Brut in allen Graden der Entwicklung einschliesst, und endlich auch selbst vom Sporenschwanz abfällt (Sporonema)"; 1858d, 270 (cf. Sporocystis).

SPORONEMATA Dies., 1858d, 240.—See Sporonema.

SPOROTHERIUM Dies., 1858d, 240 (i. e. Redia Fil.).

SPYRANURA Mont., 1888a, 20, for Sphyranura.

SQUALONCHOCOTYLE Cerf., 1899a, 347, 373, 420, 440, 445, 446, 454–455, 456 (type borealis, designated by Cerf. in correspondence with Stiles, Jan. 21, 1907).—Mont., 1903, 336 (subf. Onchocotylinæ).

abbreviata (Olss., 1876) Cerf., 1899a, 375, 380, 382, 460, pl. 19, fig. 3 (syn. Onchocotyle abbreviata Olss.) (in *Acanthias vulgaris*; Roscoff).

borealis (Ben., 1853) Cerf., 1899a, 374, 379–380, 382, 421, 422, 423, 424, 427, 428, 431, 433, 434, 436, 443, 444, 446, 456–457, pl. 18, fig. 13, pl. 19, fig. 7, pl. 20, figs. 13, 14, pl. 21, fig. 16 (syn. Onchocotyle borealis Ben.) (in *Scymnus borealis*; Liège).—Odhn., 1905, 372 (syn. Onchoc. bor. Ben.).

canis Cerf., 1899a, 375, 380, 382, 398, 406, 410, 433, 443, 447, 450, 458–459, pl. 18, figs. 1, 2, 7, 12, pl. 19, fig. 2, pl. 20, fig. 12, pl. 21, figs. 2, 6, 10 (in *Galeus canis*; Roscoff).

grisea Cerf., 1899a, 376, 381, 383, 461, pl. 19, fig. 8 (syn. Onchocotyle appendiculata Tasch., 1879) (in *Hexanchus griseus*).

spinacis (Goto, 1894) Cerf., 1899a, 376, 380–381, 383, 404, 417, 419, 424, 460–461, pl. 19, fig. 4 (syn. Onchocotyle spinacis Goto) (in *Spinax* sp.).

vulgaris Cerf., 1899a, 375, 379, 382, 403, 406, 409, 419, 427, 437, 438, 444, 446, 450, 457–458, pl. 18, figs. 3, 4, 9, pl. 19, fig. 1, pl. 20, figs. 5, 8–11, pl. 21, figs. 3, 5, 7, 9 (syns. Polyst. appendiculatum of Thaer, 1850; Onchocotyle emarginata of Sons., 1890) (in *Mustela vulgaris*).

STEGANODERMA Staff., 1904, May 3, 486–487 (m. formosum) (στεγανός=covered).

formosum Staff., 1904, May 3, 486–487 (t. h. Hippoglossus hippoglossus; Canada.) (formosus, well formed).

STENAKRON Staff., 1904, May 3, 487 (m. vetustum) (στενός=narrow; ἄκρον=end).

vetustum Staff., 1904, May 3, 487 (in Hippoglossus hippoglossus; Hemitripterus americanus), based on Linton, 1901, 485, pl. 32, fig. 359, pl. 33, figs. 360–362, in *Limanda ferruginea*; Woods Hole) (vetustus old).

STENOCOLLUM Staff., 1904, May 3, 487 (m. fragile); στενός, narrow; collum, neck.

fragile (Lint., 1900) Staff., 1904, 487 (in *Mola mola*).

STEPHANOCHASMUS Looss, 1900, Dec. 3, 603 (=Stephanostomum Looss, 1899 [not Stephanostoma Danielson & Koren] renamed, hence type cesticillus); 1901b, 199; 1901e, 595, 597–605, 628, 629, 634, 654–661; 1901f; 1902g; 1902m, 441, 780, 808, 838.—Braun, 1901a, 34; 1902b, 30.—Odhn., 1902, 37; 1902, 155, 159; 1905, 331.—Pratt, 1902, 888, 895.

1899: Stephanostomum Looss, 1899b, 576 (tod. cesticillus), not Stephanostoma Danielson, 1880, worm.

baccutus Nicoll, 1907, 72, 80–83, pl. 2, figs. 5–7 (in Hippoglossus vulgaris; Scotland).

bicoronatus (Stoss., 1883) Looss, 1901e, 599–601, 604, fig. 2 (in *Umbrina cirrhosa*, *Corvina nigra*).

caducus Looss, 1901e, 603–604, fig. 4 (in *Gadus minutus*, *Lophius piscatorius*; apparently Trieste).—Nicoll, 1907, 81.

cesticillus (Mol., 1858) Looss, 1901e, 598–599, 601, 604, fig. 1 (in *Lophius piscatorius*).—Nicoll, 1907, 80, 81, 82, 83.

histris (Dies., 1850, for *hystrix* Duj., 1845) Staff., 1904, May 3, 485 (on fins of *Pseudopleuronectes americanus* Walb., and in cysts free in stomach of *Lophius piscatorius* containing 2 partially digested *Limanda ferruginea*).

minutus Looss, 1901e, 604–605 (in *Uranoscopus scaber*; apparently Trieste).—Nicoll, 1907, 83.

pristis (Delongchamps, 1824) Looss, 1901e, 601–603, 604–605, figs. 3, 5 (in *Gadus euxinus*, *G. minutus*, *Motella vulgaris*).—Nicoll, 1907, 80.

sobrinus (Levin., 1881) Staff., 1904, May 3, 485 (in rectum of *Hemitripterus americanus*, *Cryptacanthodes americanus*, *Lycodes* sp.; Canada).—Odhn., 1905, 331 (syn. Dist. sobrinum).

- STEPHANOPHARYNX Fischder., 1901, 370 (m. compactus); 1902a, 24; 1903h, 492 (Paramphistominae), 551.—Looss, 1902m, 835.—Pratt, 1902, 887, 892.—Shipley, 1905, v. 6 (1), 8.
- compactus* Fischder., 1901, 370 (in *Bos taurus*); 1902a, 24–26, fig. 2 (in *Bos taurus*; Africa); 1903h, 493, 496, 566, 567, 584.
- STEPHANOPRORA Odhn., 1902, 22–24 (m. ornata), fig. 1.—Pratt, 1902, 888, 895 (key).
- ornata* Odhn., 1902, 22–24, fig. 1 (in Nilkrokodil).
- STEPHANOSTOMUM Looss, 1899b, 576–577, 579, 582, 583, 590, 596 (tod. cesticillus) [not Stephanostoma Danielsen, 1880, Vermes), *ὁ στέφανος*, Stirnkron, Kranz; 1900, 603 (renamed Stephanochasmus); 1901, 595.—Braun, 1901b, 34; 1901i, 55.—Luehe, 1900, 489.—Rud., 1801a, 58.—Stiles, 1901, 189.
- cesticillus* (Mol., 1858) Looss, 1899b, 576, 582, 696–698, figs. 21–22 (in *Lophius piscatorius*; Naples).
- hystrix* (Duj. of Olss.) Looss, 1899b, 576, 582.
- lyde* (Stoss., 1896) Looss, 1899b, 576, 582.—Type of *Dihemistephanus* 1901.
- pristis* (Deslongchamps, 1824) Looss, 1899b, 576, 582, 697.
- sobrinum* (Levin., 1881) Looss, 1899b, 576, 582.
- STERELMINTHA Owen, 1835, 390.—Aitken, 1872, 146, 178–207; 1874, 57.—Baird, 1853a, 39 (pars=Trematoda).—Dunglison, 1893, 820, 1039.—Mont., 1888a, 84.—Sieb., 1839, 153.—Tasch., 1879, 234.
- STERINGOPHORUS Odhn., 1905, 309 (tod. furciger).
- furciger* (Olss., 1868) Odhn., 1905, 301, 305–310, pl. 2, figs. 6–7 (in *Pleuronectes limanda* and *Drepanopsetta platessoides*; on Swedish west coast; *Cottus scorpius*, *Gymnocanthus ventralis*, *Lycodes pallidus*; East Greenland).—Nicoll, 1907, 72, 183 (in *Pleuronectes limanda*).
- STERRHURINAE Looss, 1907, 599–600, subf. of Hemiuridae, contains: 1. *Sterrhurus*, 2. *Lecithochirium*, 3. *Synaptobothrium*, 4. *Plerurus*.
- STERRHURUS Looss, 1907, 600 (tod. musculus).
- fusiformis* (Luehe, 1901) Looss, 1907, 602 (in *Conger conger*).
- grandiporus* (Rud., 1819) Looss, 1907, 601–602 (in *Muraena helena*; Naples).
- imocarus* Looss, 1907, 601 (in *Thynnus* sp. (? *thunnina*); Alexandria, Egypt).
- musculus* Looss, 1907, 600–601 (in *Anguilla vulgaris*, *Dentex vulgaris*; Trieste; also in *Acipenser sturio*, *Gadus euxinus*, *Gobius jozo*, *Labrax lupus*, *Lichia amia*, *Lophius piscatorius*, *Ophidium barbatum*, *Pagellus erythrinus*, *Rhombus maximus*, *Serranus cabrilla*, *Trachinus draco*; Trieste).
- STICHOCOTYLE Mont., 1892, Oct. 7, 176, for *Stichocotyle*.
- STICHOCOTOTYLE Mont., 1888a, 9, for *Stichocotyle*.
- nephropis* (Cunningham, 1884) Mont., 1888a, 9, for *Stichocotyle nephropis*.
- STICHOCOTYLE Cunningham, 1884a, July 12, 399 (m. *nephropis*); 1887a, 273–280, figs. 1–6.—Brand., 1898a, 213 [21].—Braun, 1892, 47; 1892a, 571, 581, 660, 672; 1893a, 892.—Hoyle, 1890, 539.—Jackson, 1888, 645, 646.—Mont., 1888a, 16, 31, 32, 42, 43, 44, 45, 46, 47, 91, 107; 1892, Oct. 7, 176, 196, 198; 1893, 20, 36, 37.—Nickerson, 1901, Mar. 8, 378 (*Aspidobothridae*); 1902, 603, 604, 607, 609, 610, 612, 614, 615, 616, 617.—Odhn., 1902, 44, 45.—Pratt, 1902, 887, 891.
- 1888: *Stichocotyle* Mont., 1888a, 9, misprint.
- 1892: *Stichocotyle* Mont., 1892, 176, misprint.
- nephropis* Cunningham, 1884a, 399 (in *Nephrops norvegicus*; Firth of Forth); 1887a, 273–280, pl. 39, figs. 1–6.—Braun, 1892a, 571.—Jackson, 1888, 642.—Jägers., 1899, 202.—Mont., 1888a, 9 (*Stichocotyle*), 12, 26, 38, 39, 80, 89; 1893, 36, 48.—Nickerson, 1895, 447–480, pls. 29–31 (in American lobster); 1895, 634–635; 1902, 614, 617 (in *Raja* sp.; Europe, N. America).—Odhn., 1898, 509–513 (sexual form).—Rossbach, 1906, 374.
- (STICHORCHIS) Fischder., 1901, 373 (tod. *giganteus*), subg. of *Cladorchis*: 1902a, 41 (type *giganteum*).—Looss, 1902m, 836.—MacCallum, 1905b, 668.
- giganteus* (Dies., 1836d) Fischder., 1901, 373; 1902a, 41–42, 43 (in *Dicotyles albirostris*, *D. torquatus*).
- subtriquetrus* (Rud., 1814) Fischder., 1901, 373–374; 1902a, 35, 42–43 (syns. *Amphist. subtriquetrum* Rud., *Dist. amphistomoides* Boj.) (in *Castor fiber*); 1903h, 567.
- STICHORCHIS (Fischder., 1901) Looss, 1902m, 439.
- subtriquetrus* (Rud., 1814) Looss, 1902m, 439.

- STICTODORA Looss, 1899b, 671–672 (m. sawakinensis), *στικτός*, punctuate; *ἡ δορά*, skin; 1902m, 442.—Pratt, 1902, 890, 910.
- sawakinensis* Looss, 1899b, 672, 754–755, fig. 90 (in *Laurus* sp.; Sawakin, Egypt, Jan.).
- STOMYLOTREMA Looss, 1900, Dec. 3, 602 (=Stomylus Looss, 1899 [not Fähr., 1871] renamed) (type singulare=perpastum).—Braun, 1901, 260; 1901, 896; 1902b, 85, 86, 91 (syn. Stomylus) (type S. perpastum Braun=singulare Mol. of Looss).—Odhn., 1902, 38.
- 1902: Stromplotrema Zool. Rec., 1902 (1901), v. 38, 53, Vermes, misprint.
- bijugum* Braun, 1901g, 896 (in *Himantopus melanopterus* Mey.; Brazil); 1902b, 91, fig. 53.
- fastosum* Braun, 1901g, 896 (in *Caprimulgus* sp., *Squatarola helvetica*; Brazil); 1902b, 90, fig. 52.
- perpastum* Braun, 1902b, 86, 88 (syn. Stomylus singularis of Looss, not Dist. singulare Mol.).
- pictum* (Crep., 1837) Braun, 1901, 896; 1902b, 86 (syns. Dist. pictum Crep., 1837, 313, 316; D. singulare Mol., 1861, 200).
- [*singulare* (Mol., 1861, of Looss)].
- tagax* Braun, 1901g, 896 (in *Hirundo versicolor* Natt.; Brazil); 1902b, 90, fig. 51.
- vicarium* Braun, 1901, 896 (in *Ibis cœrulescens* Vieill.; Brazil); 1902b, 89, 90, fig. 1.
- STOMYLUS Looss, 1899b, 629–630 (m. singularis) (*στωμύλος*=Der ein gutes Mundwerk hat) [nec Stomylus Fähræus, 1871, coleopteron]; 1900, Dec. 3, 602 (renamed Stomylotrema).—Braun, 1902b, 85, 86, fig. 49 (syn. of Stomylotrema).
- singularis* (Mol., 1861, of Looss) Looss, 1899b, 596, 630, 723–725, figs. 42–43 (in *Glareola pratincola*; Dachschor).—Braun, 1901, 260; 1901, 896; 1902b, 86, 88 (syns. Stomylotrema perpastum, not Dist. singulare Mol.).
- STRIGEA Abildg., 1790a, 37, pl. 5, a–c (m. strigis), mentions only Gœze, 1782a, 174, pl. 14, figs. 4–6 (=strigis).—Baird, 1853 (=Holost. macrocephalum).—Brand., 1888a, 9.—Braun, 1893a, 884, 894, 902.—Cuv., 1817, 41.—Deslongchamps, 1824yy, 701; 1829e, 677.—Dies., 1850a, 307 (syn. Hemist. Dies.), 312 (syn. of Holost. variabile).—Fischder., 1901, 367; 1902a, 6 (renamed Amphistoma by Rud.), 7 (m. strigis Gœze, 1782a, =Amphist. macrocephalum Rud., 1809, =Holost. macrocephalum Nitzsch, 1819) (“if again made valid=Holost., while Amphist. must receive a new name”); 1903h, 487, 490.—Linst., 1905, 191.—Looss, 1902m, 438, 439, 746, 756.—Luehe, 1901, 175.—Rud., 1801a, 59; 1809a, 21.—Shipley, 1905, v. 6 (1), 7 (type Holost. macr.).
- 1801: Amphistoma Rud., 1801a, 50 (Strigea renamed).
- 1819: Holostomum Nitzsch, 1819, 399–401, type by inclusion variabile=strigis.
- anatis tadornæ* Viborg, 1795, 196.—Dies., 1850a, 313 (syn. of Holost. erraticum).—Rud., 1809a, 352 (to Amphist.).
- candida* Mueller (or Abildg.), 1806a, v. 4, 32, pl. 143, fig. C, 1–2.—Dies., 1850a, 313 (syn. of Holost. erraticum).—Olfers, 1816, 48.—Rud., 1814a, 100 (renamed Amphist. isostomum).
- cervi* (Schränk, 1790) Rail., 1893a, 376.—Stiles, 1898a, 64.
- falconis palumbi* Viborg, 1795, 243.—Baird, 1853a, 47 (=Holost. macrocephalum).—Dies., 1850a, 309 (syn. of Hemist. spatula).—Rud., 1809a, 352 (to Amphist.).
- longicollis* (Duj. [Rud., 1819]) Luehe, 1905, 215 (syns. Echinorhynchus gazæ, Gmelin, Zed.; E. ardeæ albæ Rud.; E. sp. Mueller).
- STROMPLOTREMA Zool. Rec., 1902 (1901), v. 38, 53 Vermes, for Stomylotrema.
- STYPHLODORA Looss, 1899b, 592, 593, 594, 633 (tod. serrata) (*στυφλός*=rough; *ἡ δορά*=skin); 1901, 560; 1902m, 505, 506, 507 (diagnosis), 512, 514, 821.—Cohn, 1902, 882.—Odhn., 1902, 27, 40, 42.—Pratt, 1902, 888, 899.
- 1902: Styphlodora Looss, 1902m, 872, misprint.
- serrata* Looss, 1899b, 592, 707–708, 709, fig. 28 (in *Varanus niloticus*; Zool. Inst., Leipzig).—Luehe, 1900, 561.
- solitaria* Looss, 1899b, 592, 708–709, fig. 29 (in *Thalassochelys corticata*; Abukir); 1902m, 505, 506–507, 511, 517, 872, pl. 24, fig. 40.—Luehe, 1900, 560, 561.—Pratt, 1903, 25 (Styphlodora), 33, to (Renifer).
- SUBCLAVATA Gœze, 1782, 41, 169, 178–179 (a “Klasse” of Plan. Gœze, 1782, containing Fasc. subclavata Pallas).

- SYNAPTOBOTHRIUM Linst., 1904, 254 (m. copulans).—Odhm., 1906, 59–66, figs. 1–2 (syn. of Lecithochirium Luehe, 1901, 473).
- caudiporum* (Rud., 1819) Looss, 1907, 604 (in Zeus faber; Triest; also in Caranx trachurus, Lophius piscatorius, Platessa passer, Rhombus lævis, R. maximus, Scomber colias; Triest).
- copulans* Linst., 1904, 254, figs. 1–4 (in Arnoglossus laterna; ?Louvain); 1906, 751.—Odhm., 1906, Apr. 3, 59–66, figs. 1–2 (to Lecithochirium).
- SYNCELIINE Looss, 1899b, 544, 642, 645, 646; 1901, 208 (includes: Syncœlium, Progonus, Otiotrema).—Fuhrmann, 1904, 61 (Syncoliinae).—Odhm., 1905, 366.—Pratt, 1902, 889, 905 (includes: Progonus, Syncœlium, Otiotrema; related genera Halipegus, Accacœlium, Eurycœlium).
- 1904: Syncoliinae Fuhrmann, 1904, 61, for Synceiliinae.
- SYNCELIUM Looss, 1899b, 643–644, 645, 646 or 647, 741, 742, 743 (m. ragazzii); 1901, 208, 209, 210; 1902m, 642, 813.—Braun, 1902b, 23.—Fuhrmann, 1904, 61.—Luehe, 1901, 481, 482, 486.—Odhm., 1905, 366.—Ofenheim, 1900, 160.—Pratt, 1902, 889, 905.
- ragazzii* (Setti, 1897) Looss, 1899b, 644, 731–736, 737, 738, 743, 746, figs. 50, 62, 63–68 (in Lamna sp.; Sawakin).—Darr, 1902, 661.—Luehe, 1901, 481.
- SYNCOLINE, see Synceiliinae.
- TAPHROGONIMUS Cohn, 1904, 235–237 (m. holostomoides).
- holostomoides* (Mehlis, 1846) Cohn, 1904, 235–237 (syn. Monostomum pingue Crep., 1843; Braun, 1893a, 915; Brand., 1892, 504–511).—Reported for Podiceps cristatus.
- (TAXORCHIS) Fischder., 1901a, 373 (tod. schistocotyle); 1902a, 39–40; 1903h, 498.—Looss, 1902m, 836 (as genus).
- schistocotyle* Fischder., 1901a, 373 (in Dicotyles torquatus); 1902a, 40–41 (syn. Amphist. giganteum Dies., e. p.).
- TELORCHINE Looss, 1899b, 569.—Braun, 1901b, 20.—Pratt, 1902, 888, 895 (includes Telorchis, Orchidasmus; related genus Deroprists).
- TELORCHIS Looss, 1899b, 566–569, 614 (tod. linstowi = ? aculeatus); $\tau\eta\lambda\omicron\upsilon\tau\epsilon$, in der Ferne; $\delta\rho\chi\iota\varsigma$, testes; 1900, 608.—Braun, 1900, 234.—Stiles, 1901, 183, 185.—See also D. ercolanii, D. poirieri, D. nematoides, D. arrectum.
- TELORCHIS Luehe, 1899, 529, 530 (tod. clava): 1900, 556, 566; 1901, 488.—Braun, 1900, 390; 1901b, 13, 14, 17, 19, 20, 21, 26, 30, 34; 1901i, 56, 58.—Looss, 1901, 207; 1902m, 824, 831, 832, 834, 839.—Pratt, 1902, 888, 895.
- aculeatus* (Linst., 1879) Braun, 1901b, 14–17 (syn. Dist. linstowi Stoss.), 19, fig. 4.—Stoss., 1904, 4, 5, 6, 8 (in Testudo græca; Albania).
- arrectus* (Duj. of Mol., 1859) Stoss., 1904, 9 (in Podarcis muralis; Italy).
- augustus* Staff., 1905, Apr. 11, 690 (in Chrysemys picta; Canada), misprint for angustum (Dist.), 1900.
- bifurcus* (Braun, 1899) Braun, 1901, 18–19, 30, fig. 2.—Heymann, 1905, 95 to (Cercorchis).—Stoss., 1904, 9 (Testuggini d'acqua dolce; Brazil).
- clava* (Dies., 1850) Luehe, [1899, 529;] 1900, 566.—Looss, 1900, 608; 1901, 207; 1902m, 831.—Odhm., 1900, 17.—Stoss., 1904, 9 (in Eunectus scytale; Brazil).
- ercolanii* (Mont., 1893) Braun, 1901b, 16.—Rizzo, 1902, 28 (syn. Dist. monticelli) (in Tropidonotus natrix; Catania).—Stoss., 1904, 4, 5–6 (syn. T. nematoides) (syn. Dist. ercolanii) (in Trop. nat., T. viperinus; Italy).
- linstowi* (Stoss., 1890) Looss, 1899b, 566 (type of Telorchis Looss, not Luehe).—Braun, 1901b, 14 (syn. of aculeatus).—Luehe, 1900, 566 to (Cercorchis, type).—Stoss., 1904, 3, 4.
- nematoides* (Mueh., 1898) [Luehe, 1899, 529.—] Braun, 1901b, 16.—Looss, 1899b, 567.—Odhm., 1900, 17.—Stoss., 1904, 4, 6 (syn. T. ercolanii) (in Tropidonotus natrix; Germany).
- parvus* Braun, 1901b, 19–20, fig. 3 (in Testudo orbicularis; Vien. Mus.).—Heymann, 1905, 95, to (Cercorchis).—Stoss., 1904, 9 (in Cistudo lutaria).
- pleroticus* (Braun, 1901) Braun, 1901b, 17–18, fig. 5.—Heymann, 1905, 95, to (Cercorchis).—Stoss., 1904, 9 (in Testuggini d'acqua dolce; Brazil).
- poirieri* (Stoss., 1895) Odhm., 1902, 31.—Heymann, 1905, 95, to (Cercorchis).—Stoss., 1904, 3–5, fig. 2 (syns. Dist. gelatinosum Rud. of Poir., 1885, D. poirieri) (in Cistudo lutaria; Italy and France; in Emys orbicularis; Sassari, Sardegna).
- solivagus* Odhm., 1902, 29–32, fig. 2 (in Clemmys caspica).—Stoss., 1904, 9 (in Cl. casp.; Caucasia).

TELORCHIS (CERCORCHIS) Heymann, 1905, 94, sp. (in *Dermatemys mavi*).

TEMNACEPHALE Cosmovici, 1887a, 127 (for *Temnocephala*).

TEMNOCEPHALA E. Bl., 1849, 51–52 (m. chilensis).—Bettend., 1897a, 8; 1897, 312.—R. Bl., 1888, 137, 138 (m. chilensis) (on écrevisse; Chili), g. of Branchiobdellides.—Brand., 1891d, 13, 24, 27, 28, 29.—Braun, 1889k, 620, 621; 1890a, 408, 412, 422, 424, 425, 429, 430, 435, 436, 437, 440, 442, 444, 445, 447, 451, 456, 458, 461, 465, 466, 468, 469, 470, 471, 472, 475, 479, 481, 482, 485, 490, 491, 497, 499, 510, 511, 512, 517, 520, 521, 522, 523, 525, 1890b, 84–90, 125–128; 1890e, 595; 1893a, 889; 1893b, 179; 1895b, 25; 1906, 129.—Buttel-Reepen, 1900a, 590.—Chilton, 1888, 252; 1889a, 252–253 (on crayfish in New Zealand).—Cosmovici, 1887a, 127 (*Temnacephale*).—Darr, 1902, 649, 678.—Gamb., 1896a, 4, 56, 73.—Graff, 1903.—Haswell, 1887a, 279–302, pls. 20–22; 1888a, 50–51; 1888, 279–302; 1892a, 457ff; 1892b, 149–151; 1892c, 486; 1892d, 360–362 (integument); 1893, 455–460; 1893c, 342; 1893d, 477; 1893e, 93ff; 1893f, 153, 154, 155, 156; 1894, 93–152.—Kathariner, 1894a, 132, 134.—Looss, 1894a, 219; 1895, 36.—Maclaren, 1904, 582, 601.—Mont., 1888a, 10, 15, 17, 18, 22, 27, 33, 34, 35, 36, 38, 39, 42, 43, 44, 45, 47, 48, 49, 50 (*Temnocephala*), 51, 52, 53, 54, 56, 57, 58, 64, 66, 67, 86, 88, 98, 110; 1889b, 4pp., 3 figs.; 1891, 1892, 100, 108, 109, 110, 128, 129.; 1892, Oct. 7, 186, 213 cg. of *Temnocephalidae*; 1893, 8, 9, 114, 211; 1899, 72–122 (107 *Temnocephala*); 1905f, 21–24, 2 figs. (in *Sesarma gracilipes*; New Guinea); 1905h, 402–403.—Plate, —, 187–191.—Pratt, 1900a, 646, 647 (key), 658.—Roewer, 1906, 207, fig. 4.—St.-Remy, 1898, 522, 524–525.—Schuberg, 1895, 180.—Semper, 1872, 304.—Vaysiere, 1892, July 4, 64–65; 23 pp., 1 pl. (on *Astacoides madagascariensis*); 1894, 16 Mar., 389.—Wacke, 1902, 34 pp.; 1903, 12 May, in 1–116, pls. 1–9, figs. 1–75; 1903, Aug., 2481; 1903, 17 Oct., 17–18; 1904, 17 May, 281; 1905, July, 64.—Weber, 1889, 1–20, 3 pls.

1887: *Temnacephale* Cosmovici, 1887a, 127 (for *Temnocephala*).

1888: *Temnocephala* Mont., 1888a, 50 (for *Temnocephala*).

1889: *Temnocephala* Mont., 1889, 107, misprint.

aurantiaca Haswell, 1900, 431, 433, pl. 22, fig. 3 (in *Astacopsis* sp.).

axenos Mont., 1898, —; 1899, 83, 84, 101, 102, 103, 104, 112, 114, 120, pl. 3, figs. 9, 10 (host not known; Brazil).—Cerf., 1899a, 448.

bifasciata Haswell.—Mont., 1889, 2.

brevicornis Mont., 1889, 1–4, figs. 1–3 (in *Hydromedusa maximiliani*, *Hydraspis radiolata*; Brazil (syn. *Pentadion emydum* Kroyer MS.); 1892, 110; 1893, 8, 114; 1899, 72–127, 2 pls.; 1899, 72–122, pl. 3, figs. 1–8, 11–18, pl. 4, figs. 19–33 (in *Hydraspis gibba*; Brazil; *Hydromedusa maximiliani*, *H. tectifera*); 1903, 2.—Brand., 1891d, 21, 24, 25.—Braun, 1890a, 525, 547, 552.—Cerf., 1899a, 448.—Haswell, 1892d, 361; 1893e, 94, 103, 104, 105, 112, 141 (in *Hydrom. maxim.*, Brazil; *Hydraspis radiolata*); 1900, 433, 434.—St.-Remy, 1898, 528.

cæca Haswell, 1900b, 432, 433, pl. 22, fig. 4 (in *Phreatoicopsis* n. sp.; Victoria).

chilensis (Moquin-Tandon) E. Bl., 1849, 51–52, pl. 2, fig. 6 (“en las branquias de los cangrejos de Chile”).—Braun, 1890a, 499, 525, 547, 549; 1891d, 421.—Cerf., 1899a, 448.—Haswell, 1887a, 279, 284 (of Gay); 1893e, 96, 131, 140 (in *Æglea*; Chile).—Mason, 1875a, 336–337.—Mont., 1888a, 88 (of *Blainv.*); 1889, 2; 1889q, 125–133, figs. 1–13; 1889r, 9 pp., 13 figs.; 1891, 1892, 128, 129; 1890a, 500–501; 1891g, 44–45; 1892, Oct. 7, 186; 1893, 114; 1899, 72, 73, 76, 78, 79, 80, 81, 83, 84, 85, 93, 101, 102, 107, 108, 109, 111–113 (*chilensis*), 114, 120 (in *Æglea lævis*; Chile) (of Moquin-Tandon); 1899, 125–133, figs. 1–13; 1899, 9 pp.; 1903, 2.—Philippi, 1870, 35–40.—Plate, 1894, 686–687; —, 529–531; 1897, 213.—St.-Remy, 1898, 525.—Wacke, 1903, May 12, in 1–116, 9 pls., 14 figs.; 1903, 17 Oct., 17–18; 1905, July, 64.—Wood, 1875, 336–337.

chilensis Mont., 1899, 113, for *chilensis*.

comes Haswell, 1893e, 96, 98, 100, 123, 134, 138, pl. 13, figs. 15, 16 (in *Astacopsis serratus*); 1900, 433.—Mont., 1899, 83, 110, 114, 121 (in *Ast. serr.*; Australia, N. S. Wales).—St.-Remy, 1898, 525.

dendyi Haswell, 1893e, 96, 97, 98, 99, 100, 102, 105, 111, 115, 116, 122, 123, 124, 125, 126, 130, 135–136, 144, pl. 10, figs. 8, 12, 17, 18, pl. 11, figs. 5, 6, pl. 12, figs. 7, 11, pl. 13, figs. 1–11 (in *Astacopsis bicarinatus*); 1900, 433.—Mont., 1899, 83, 84, 93, 110, 114, 121 (in *Ast. bic.*; Australia, N. S. Wales, Victoria).—St.-Remy, 1898, 527.

digitata Mont., 1903a, 309 (in *Palemonetes argentinus*); 1903, 3; 1905g, July, 64.

TEMNOCEPHALA—Continued.

engæi Haswell, 1893e, 97, 124, 139-140, pl. 13, fig. 20 (in *Engæus* fossor; Gippsland).—Mont., 1899, 83, 114, 121 (in *Engæus* fossor; Australia, Gippsland) (*engei*).—St.-Remy, 1898, 528.

engei Mont., 1899, 83, 114, 121 (for *engæi*).

fasciata Haswell, 1887a, 284, 285, 293, 296, pl. 20, figs. 1, 2, pl. 21, figs. 1-7, 9-13, pl. 22, figs. 1-7, 11-18 (in *Astacopsis serratus*; N. S. Wales) (286, *fasciatus*); 1888a, 50 (in *Ast. serr.*; N. S. W.); 1892d, 361; 1893e, 96, 98, 99, 100, 102, 104, 106, 107, 109, 110, 111, 115, 118, 119, 121, 122, 123, 124, 126, 131, 133-134, 135, 136, 137, 138, pl. 10, figs. 1-3, 5, 6, 13, 14, 15, 16, pl. 11, fig. 2, 3, 4, 7, 8, 9, pl. 12, figs. 1, 3, 4, 5, 6, pl. 13, figs. 12-14, pl. 14, fig. 1 (*Asta. serr.*); 1900, 433, pl. 22, fig. 5.—Brand., 1891d, 24.—Braun, 1890a, 409, 422, 465, 525, 547, 549.—Mont., 1888a, 53, 88; 1891, 1892, 129; 1893, 114, 1899, 83, 92, 93, 97, 99, 102, 103, 110, 114, 120 (in *Ast. serr.*; Australia, N. S. Wales).—St.-Remy, 1898, 525, 527.

fasciatus Haswell, 1887a, 286, for *fasciata*.

jheringii Mont., 1899, 79, 83, 84, 85, 109, 111, 112, 114, 120 (for *jheringii*).

jheringii Haswell, 1893e, 96, 100, 102, 112, 113, 121, 130, 137-138, 140, pl. 13, fig. 19, pl. 15, fig. 2 (in *Ampullaria*; Brazil).—Cerf., 1899a, 448.—Mont., 1899, 79, 83, 84, 85, 109, 111, 112, 114, 120 (*jheringii*) (in *Ampullaria* sp.; Brazil).—St.-Remy, 1898, 527-528.

madagascariensis Vayssière (1892), 64-65; 1894.—Braun, 1893b, 183.—Cerf., 1899a, 449.—Haswell, 1893e, 141 (in *Astacoides madagascariensis*).—Mont., 1899, 76, 79, 82, 83, 91, 93, 101, 103, 114, 115-116.—St.-Remy, 1898, 528-529 (on *Ast. mad.*; Madagascar).

mexicana Vayssière, 1898, 227-235, 1 pl. (on *Cambarus digneti*); 1898, 17-25, pl. 11.—Cerf., 1899a, 448.—Mont., 1899, 79, 83, 85, 101, 103, 106, 114, 120 (in *Camb. dig.*; Mexico.—Pratt, 1900a, 655, 657, 658 (key), fig. 1.

microdactyla Mont., 1903b, 1-3; 1905b, Jan. 31, 22 (in *Dilocarcinus septemdentatus*; Matto Grosso).

minor Haswell, 1887a, 284, 285, 296, pl. 20, fig. 4, pl. 21, fig. 8, pl. 22, fig. 9 (in *Astacopsis bicarinatus*; N. S. W.); 1888a, 50 (in *Ast. bicar.*; N. S. W.); 1893e, 95, 96, 98, 99, 100, 101, 102, 109, 110, 116, 121, 123, 126, 131, 134, 135, 136, 137, 139, 141, 142, 144, pl. 12, figs. 2, 8, 9, pl. 15, fig. 1 (in *Asta. bicari.*); 1900, 433.—Braun, 1890a, 525, 547, 549.—Mont., 1888a, 53, 88; 1889, 3; 1899, 83, 93, 99, 101, 110, 114, 120 (in *Ast. bicar.*; Australia, N. S. Wales, Victoria).—St.-Remy, 1898, 526-527, 528, 529.

novæ zelandiæ Haswell, 1888a, 50, for *novæ zelandiæ*.

novæ-zelandiæ Haswell, 1887a, 284, 293, 296, 298, pl. 22, figs. 10, 19 (in *Paranephrops setosus*; New Zealand); 1888a, 50 (in *Para. setosus*; N. Zea.) (*novæ zelandiæ*); 1892a, 459; 1893e, 96, 97, 98, 99, 100, 109, 110, 115, 116, 121, 130, 131, 138-139, 145, pl. 10, figs. 4, 7, 11, pl. 11, fig. 1, pl. 13, figs. 17, 18, pl. 14, figs. 2, 3 (in *Para. neozealanicus*, *P. planifrons*; New Zealand); 1900, 433.—Braun, 1890a, 525, 547, 550.—Gamb., 1896a, 54, figs. 20, 21.—Maclaren, 1904, 582, 583, 596.—Mont., 1888a, 98; 1889, 3; 1899, 83, 86, 92, 101, 103, 105, 109, 110, 114, 121 (in *Para. novæ-zelandicus*, *P. setosus*; New Zealand).—St.-Remy, 1898, 526 (*novæ-zelandiæ*).—Wacke, 1903, 12 May, 1-116; 1903, 17 Oct., 17-18; 1905, July, 64.—Ziegler, 1905, 40, fig. 4 (after Wacke, 1903).

quadricornis Haswell, 1887a, 284, 296, pl. 20, fig. 3, pl. 22, fig. 8 (in *Astacopsis franklinii*; Tasmania); 1888a, 50 (in *Asta. frank.*; Tasmania); 1893e, 96, 98, 100, 101, 102, 109, 110, 120, 121, 124, 131, 136-137, pl. 12, fig. 10, pl. 14, fig. 4 (in *Asta. frank.*; Tasm.).—Braun, 1890a, 409, 525, 547, 549.—Mont., 1888a, 10, 53, 88; 1889, 3; 1899, 83, 101, 114, 117, 120 (in *Asta. frank.*; Australia, Tasmania).—St.-Remy, 1898, 526.

semperi Weber, 1889, —.—Braun, 1890a, 461, 466, 499, 525, 547, 550; 1890b, 126; 1898a, 1567.—Cerf., 1899a, 449.—Haswell, 1892a, 458; 1893e, 96, 97, 98, 99, 102, 112, 113, 115, 119, 122, 123, 128, 129, 130, 131, 138, 140 (in Philippines); 1900, 433.—Mont., 1891, 1892, 129 (*semperii*); 1893, 114; 1899, 73, 76, 77, 78, 79, 82, 83, 87, 91, 96, 99, 102, 103, 107, 108, 109, 112, 114, 121 (in *Telphusa* sp.; Philippine, Sonda).—St.-Remy, 1898, 528.

semperii Mont., 1892, 129, for *semperi*.

tasmanica Haswell, 1900, 430-431, 433, pl. 22, figs. 1-2 (in *Astacopsis tasmanicus*).

tumbesiana Wacke, 1903, 12 May, 1-116; 1903, 17 Oct., 17-18; 1905, July, 64.

TEMNOCEPHALÆ Mont., 1888a, 19, 88, 96, for Temnocephalæ.

TEMNOCEPHALÆ Haswell, 1892a, 457-460; 1893b, 191; 1893e, 93-152 (monograph); 1893f, 153, 154, 155, 157; 1894b, 256; 1900, 430-435, 1 pl. (Temnocephalæ).—Braun, 1890a, 517, 520, 523, 524.—Cerf., 1894, 946, 948; 1898b, 361.—Mont., 1888a, 19, 88, 96 (Temnocephalæ), 7, 9, 10, 11, 13, 15, 16, 17, 18, 19, 20 (Temnocephalæ), 22, 23, 26, 27, 28, 29, 31, 34, 36, 41 (Temnocephalæ), 42, 47, 52, 55, 59, 64, 67, 86, 88, 98, 108, 110.

TEMNOCEPHALIDÆ Haswell, 1888.—Braun, 1890a, 524; 1893a, 889.—Gamb., 1896, 53-55, 73.—Mont., 1888a, 25, 27; 1892, Oct. 7, 213 (fam. of Eterocotylea; contains Temnocephala); 1899, 116-122.—Pratt, 1900a, 646 (Temnocephalinae, Actinodactynellinae) 647 (key).—St.-Remy, 1898, 522, 524.

TEMNOCEPHALINÆ Mont., 1899, 118, 119.—Pratt, 1900a, 646 (Temnocephala, Craspedella, Dactylocephala), 647 (key).

TEMNOCEPHALOIDEA Mont., 1905, 403.

TEMNOCEPHOLEÆ Mont., 1888a, 41 (for Temnocephalæ).

TENMOCEPHALÆ Mont., 1888a, 20 (for Temnocephalæ).

TERES SEU CYLINDRICA Goeze, 1782a, 41, 169, 173-176 (a "Klasse" of Planaria Goeze containing two "Gattungen": 1. Gattung, simpliciporo, der Entenplattwurm, Weideeulewurm; 2. Gattung, duplici poro, Iltis-Plattwurm, Dachs-Plattwurm).

TERGESTIA Stoss., 1899, 11, 16 (type probably acanthocephala).—Braun, 1901b, 34.—Looss, 1899b, 580.—Pratt, 1902a, 888, 898.

acanthocephala (Stoss., 1887) Stoss., 1899, 16 (in *Belone acus*).

laticollis (Rud., 1819) Stoss., 1899, 16 (in *Trachurus trachurus*).

TESTUCARIA Rud., 1805a, 44, for Festucaria.

TETRACOTILE Erc., 1881e, 48-54; 1882a, 284-290, for Tetracotyle.

TETRACOTYLE Fil. [1854a, 23 (tétracotyle);] 1855, 351; [tld. typica]; 1855b, 11; 1857c, 15-21, 32, pl. 2, figs. 24-31.—Brand., 1888a, 13, 14, 15, 41, 51, 52; 1890a, 571, 574, 575, 577, 578; 1892, 511.—Braun, 1892a, 658, 744, 792, 793, 794, 795; 1893a, 843, 844; 1893b, 187; 1894, 166; 1894k, 680, 681, 682; 1895b, 132, 136; 1900a, 1680.—Claparède, 1858a, 99-105, pl. 8; 1859c, 92-96.—Dies., 1855a, 381, 388; 1858e, 313, 365 (mentions only 1 form, typica), 366.—Erc., 1881e, 48-54; 1882a, 284-290 (Tetracotile).—Gamb., 1896a, 64.—Hausmann, 1897b, 4, 7, 20, 22, 36, pl. 1, figs. 9-10 (sp. in *Cobitis barbatula*).—Hoyle, 1890, 539 (larva of Holost.).—Jackson, 1888, 652 (non-sexual form of Holost.), 653, 654.—Luehe, 1899, 525.—Mont., 1888a, 71, 91, 92, 94; 1891, 110.—Moul., 1856a, 94, 151, 224-225, 234, 274, pl. 5, fig. 1, pl. 7, fig. 19.—Pag., 1857, 53; 1857, 1, 245-246.—Stiles, 1901, 173, 174.—Tasch., 1878, 248 (of Grube, syn. *Pleurocotyle* Gerv. & Ben.).—Villot, 1898, 542.

acerinae cernuæ Claparède (1857).—Dies., 1858e, 367 (syn. of *T. echinata*) (in *Leuciscus idus*, *Acerina cernua*).

colubri Linst., 1877, 192, pl. 14, fig. 22 (in *Coluber natrix*, *Vipera berus*).—Brand., 1888a, 42, 44, 45, 54; 1890a, 572, 574, 581.—Braun, 1892a, 793, 796; 1893a, 870, 901; 1894, 166-167; 1894k, 682.—Muehl., 1898, 16.—Sons., 1893, 185 (in *Tropidonotus natrix* Wagl.).—Villot, 1898, 542 (larva of Holost. *variabile* Nitzsch).—Reported also for *Pelias berus*.

crystallina Sons., 1893, 188, for *crystallina*.

crystallina (Rud., 1819) Linst., 1877b, 194-197; 1878a (Dist. *crystallinum* Rud., 1819, ex parte).—Braun, 1892a, 796; 1893a, 871.—Sons., 1893, 188 (*crystallina*) (in *Rana temporaria*).

cuticola (Nord., 1832) Kowal., 1902d, 23 (5) (in *Scardinius erythrophthalmus*); 1904, 25 (10).

cyprini idi Moul., 1856, 233.—Dies., 1858e, 366 (syn. of *T. typica*).

echinata Dies., 1858e, 367 (new name for *Distoma cyprini idi* (peritonei), see Duj.; and *T. acerinae cernuæ* Claparède; in *Leuciscus idus*; Remi; *Acerina cernua*; Geneva).—Braun, 1892a, 796.—Reported also for *Idus melanotus*.

fætorii Linst., 1876, 1-2, fig. 2 (in *Fætorius putorius*).—Braun, 1892a, 796.

lenticola (Linst., 1878) Braun, 1892a, 600.

lymnæi Pag., 1857, 32-33, pl. 3, figs. 15-18 (t. h. *Lymnæus stagnalis*).—Dies., 1858e, 366 (syn. of *T. typica*).

musculicola (Waldenberg, 1860) Braun, 1894, 167.

TETRACOTYLE—Continued.

ovata Linst., 1877b, 192–193, pl. 14, fig. 24.—Braun, 1892a, 600, 797; 1894, 166, 167; 1894k, 681, larva of *Holost. variegatum*, 682.—Mueh., 1898, 16.—Villot, 1898, 542 (larva of *Holost. variegatum*).—Reported for *Abramis brama*, *Acerina cernua*, *Blicca björkna*.

perca Mont., 1888a, 7, 30.

perca fluviatilis Moul., 1856, 230–234, pl. 7, figs. 11–14.—Braun, 1892a, 600, 796; 1893a, 870.—Linst., 1877b, 192, pl. 14, fig. 23.—Dies., 1858c, 366 (syn. of *T. typica*).—Piana, 1898, 10 pp.

petromyzontis Brown, 1899a, 489–498, pl. 39, figs. 1–11 (in *Ammocoetes*).

scomberi Grube, 1855a, 140, for ? *Octobothrium scomberi* Nord. of Grube, 1855a (on *Scomber scomber*).—Tasch., 1878, 575 (to *Pleurocotyle*); 1879, 248.

soricis Linst., 1877b, 191 (in *Sorex vulgaris*).—Braun, 1892a, 797.—Reported for *Sorex tetragonurus*.

typica Dies., 1858e, 366–367 (new name for *Dist. tarda*, *Tetracotyle* Fil., *T. cyprini* idi, *T. perca fluviatilis*, *T. lymnæi*) (reported for *Mollusca*; in *sporotheris* *Cercariæ echinatae* (*Lymnæi stagnalis*), *C. armatae*, *C. echinatoidis* (*Paludina achatinæ et viviparæ*), *C. vesiculosæ*, *Malleoli furcati*, *Lymnæus stagnalis*, *Planorbis corneus*, *Paludina vivipara*, *Perca fluviatilis*, *Leuciscus idus*, *L. dobula*, *Cyprinus carpio*, *Anas boschas fera*).—Brand., 1888a, 17, 42; 1890a, 571.—Braun, 1892a, 797; 1893a, 844; 1894, 166.—Kowal., 1894, 2.—Leidy, 1891a, 416 (in *Lymnæa catascopium*, *Physa heterostrophæ*).—Linst., 1877, 193; 1894b, 328–332, figs. 1–8.—Mont., 1888a, 71.—Par., 1894, 166.—Reported also for *Idus melanotus*.

TETRACOTYLIDÆ Mont., 1892, 107, 108.—Braun, 1895b, 174.

TETRACOTYLINÆ Mont., 1892, 107.

TETRAONCHINÆ Mont., 1903, 336 (raised from subf. to fam. rank); 1905, 80.

TETRAONCHUS Dies., 1858e, 314, 379–380 (type probably *monenteron* by elimination; agrees with first species rule).—Ben. & Hesse, 1864, 121.—Braun, 1889k, 622; 1890a, 412, 413, 417, 465, 468, 511, 517, 518, 523, 542, 544; 1893a, 890.—Gamb., 1896a, 73.—Goto, 1893a, 798.—Hoyle, 1890, 539.—Maclaren, 1904, 574, 598, 599, 600, 601.—Mont., 1888a, 10, 13, 84, 86, 101; 1889, 113–116; 1891, 127–129; 1892, Oct. 7, 213 (gen. of *Gyrodactylinae*); 1903, 336 (syns.: *Ancyrocephalus*, *Amphibdella*, *Dactylo-discus*; subf. *Gyrodactylinae*); 1905, 79, 80.—Pratt, 1900, 646, 654 (key to), 657, fig. 46.—St.-Remy, 1898, 524, 567.—Stoss., 1898, 17.—Tasch., 1879, 69; 1879, 263 (syns.: *Dactylogyrus* Wagener, *Gyrodactylus* Wedl).

benedeni St.-Remy, 1898, 566, 567, for *van benedenii*.

borealis (Olss., 1893) Mont., 1905, 79.

cruciatus (Wedl, 1857) Dies., 1858e, 381 (in *Cobitis fossilis*).—Braun, 1890a, 545, 549, 550.—Linst., 1878a.—Mont., 1889, 115, 116 (in *Cob. foss.*).—Pavesi, 1881, 616.—Tasch., 1879, 264 (syn. *Gyrodactylus cruciatus* Wedl) (in *Cob. foss.*).

monenteron (Wagener, 1857) Dies., 1858e, 380 (in *Esox lucius*).—Braun, 1890a, 520, 545, 549, 550.—Mont., 1889, 115, 116 (in *E. luc.*).—Olss., 1893, 7.—Par. & Per., 1890, 9.—Pratt, 1900a, 657, fig. 46.—Tasch., 1879, 263 (syns.: *Dactylogyrus mon.* Wagener, *Gyrodactylus cochlea* Wedl) (in *E. luc.*).

torpedinis (Chatin, 1874) Mont., 1890, 193; 1891, 1892, 109, 111; 1905, 79.

unguiculatus Mont., 1888a, 90 to (*Dactylogyrus*), for *unguiculatus*.

unguiculatus (Wagener, 1857) Dies., 1858e, 380–381 (in *Perca fluviatilis*, *Lucioperca sandra*).—Braun, 1890a, 545, 549, 551.—Hausmann, 1897b, 4, 7, 20, 23 (in *Luciop. sand.*).—Linst., 1878a.—Mont., 1888a, 90 (*unguiculatus*) to (*Dactylogyrus*); 1889, 113, 114, 115, 116 (syn. *Ancyrocephalus paradoxus* Crep.) (in *Luc. san.*, *Perc. fluv.*); 1891, 1892, 109, 127, 129, pl. 6, figs. 40, 41.—Staff., 1905, 687 (in *Eupomotis gibbosus*; *Ambloplites rupestris*).—Tasch., 1879, 238, to (*Dactylogyrus*); 1879, 263–264 (syns.: *Dact. ung.*, *Gyrodactylus crassiusculus*, *Ancyrocephalus paradoxus*) (in *Perca fluv.*, *Luc. sandra*).

van benedenii Par. & Per., 1890, 4, 12, 96–97 (8–9) (in *Mugil auratus*).—Braun, 1890a, 545, 549, 551.—Mont., 1905, 79.—Par., 1896, 2 (*v. benedeni*).—St.-Remy, 1898, 566, 567 (*benedeni*).—Stoss., 1898, 17 (in *Mugil auratus*; *Triest*).

TETRASTOMA delle Chiaje, 1833, 13 (type renale).—Andral, 1829d, 617.—Braun, 1893a, 884, 891, 892, 894; 1900a, 1681.—Burm., 1856a, 251.—Crep., 1841, 82.—Dav., 1877a, lxxx.—Dies., 1850a, 408, 597 (of Forbes & Goodsir, syn. of *Scolex Muelleri*); 1858e, 314, 367.—Goldb., 1855, 17.—Mont., 1888a, 89.

1850: *Tetrastomum* Dies., 1850a, 408, for *Tetrastoma*.

playfairii Forbes & Goodsir, (1839); 1840, 370; 1842, 370; 1846, 160.—Dies., 1850a, 599 (syn. of *Scolex acalepharum* Sars).—Mont., 1888a, 94.

renale delle Chiaje, 1833, 13, 116–117, pl. 2, fig. 13 (in *Homo*; Naples).—Aitken, 1866, 804, 841; 1872, 146, 206; 1874, 58.—Almeida Couto, 1872, 26.—R. Bl., 1888a, 597.—de Bonis, 1882, 180.—Braun, 1895b, 155.—Cobbold, 1866, 7; 1876, 211; 1879b, 36.—Crep., 1841, 82; 1846, 129.—Dav., 1877a, 296–297.—Dies., 1850a, 408 (in *Homo*; Naples); 1858e, 367.—Dunglison, 1893, 821, 1084.—Hackley, 1886, 519.—Kholodk., 1898, 26.—Leuck., 1863a, 527.—Moniez, 1896, 86, 152, 154.—Mont., 1888a, 89.—Tasch., 1879, 250.—Verrill, 1870, 171.—Weinland, 1859, 282.

TETRATHYRUS Crep., 1851b, 292 (m. *obesus*), *Dithyridium* and *Piestocystis* renamed.—See *Cestoda*.

1860: *Petrathyrus* Cobbold, 1860a, 42, misprint.

obesus Crep., 1851b, 292 (syns.: *Dithyridium lacertæ*, *Monost. lacertæ*, *Piestocystis dithyridium*) (in *Lacerta agilis*).—Dies., 1858e, 329 (syn. of *Monost. lacertæ* Gurlt, est *Piestocystis dithyridium*).

THAUMATOCOTYLE Scott, 1904, 278–279 (m. *concinna*).

concinna T. Scott, 1904, 278–279, pl. 17, fig. 15 (in *Trygon pastinaca*; Dornoch Firth); 1905, 118.

THECOSOMA Moq.-Tandon, 1860a, 342 (type *hæmatobium*) (= *Schistosoma* 1858, renamed because of *schistosoma*, a term in teratology).—Braun, 1903, 3 ed., 168 (syn. of *Schistosomum*).—Cobbold, 1879b, 39; 1885a, 498 (syn. of *Bilharzia*).—Huber, 1896a, 580 (syn. of *Bilharzia*).—Leuck., 1863a, 617.—Montgomery, 1906, Jan., 18 (*Thexosoma*); 1906, Feb. 12.—Simon, 1897, 99.—Stiles & Hass., 1898a, 94, 95 (syn. of *Schistosoma*).—See *Schistosoma*.

1906: *Thexosoma* Montgomery, 1906, Jan., 18, for *Thecosoma*.

hæmatobium (Bilharz, 1852) Moq.-Tandon, 1860a, 342.—R. Bl., 1888a, 636 (syn. *Bilharzia hæm.*).—Stiles, 1898a, 58.—Ward, 1895, 253 (to *Gynæcophorus*; *hæmatomuim*, misprint); 1895, 328 (in *Homo*); 1903, 872 (syn. *Schistosoma hæm.*).

THEXOSOMA Montgomery, 1906, Jan., 18, misprint for *Thecosoma*.

TISTOMUM Tasch., 1879, 65 (for *Tristomum*).

TOCOTREMA Looss, 1899b, 585, 586, 619 (tod. *lingua*) (ὁ τόκος, birth; τὸ τρῆμα, hole, sucker); 1900, 608; 1902m, 833, 835.—Braun, 1901i, 56.—Jægers., 1900, 736; 1901, 981; 1903a, 13, 14.—Luehe, 1900, 557.—Odhn., 1900, 21, 22.

concavum (Crep., 1825) Looss, 1899b, 586.—Jægers., 1903a, 3, 4, 5, 11, 13.—Kowal., 1902d, 26 (8).—Type of *Cryptocotyle* 1899.

expansum (Crep., 1842) Jægers., 1901b, 979–983, 1 fig.; 1902a, 356–357; 1903a, 1.—Looss, 1902m, 706.—Odhn., 1902, 45.—Type of *Scaphanocephalus* 1903.

jejunum Nicoll, 1907, 248, 257–259 (in *Totanus calidris*).

lingua (Crep., 1825) Looss, 1899b, 586.—Jægers., 1900, 736; 1901, 979, 981; 1903a, 2, 3, 4, 5, 6, 8, 9, 10, 11, 13.—Kowal., 1902d, 27 (9).—Nicoll, 1906, 514, 519 (in *Larus argentatus*).—Odhn., 1902, 45.

muehlingi (Jægers., 1898) Looss, 1899b, 585.

TOCOTREMINÆ Jægers., 1903a, 14.

TRACHOPUS Ben., 1858a, 1861a, 11, for *Trochopus*.

TREMATODA [order of worms] Rud., 1808a, 199; 1809a, 5–6, 20–23, 325–457; 1819a, 82–126, 337–439, 674–688.—Aitken, 1866, 804, 836–842.—Anacker, 1891a, 127; 1892c, 94.—Andral, 1829c, 506, 512; 1829d, 617, 624, 633.—[Assenova, 1899, 82–83.]—Ballowitz, 1900, 442–448.—Bellingham, 1844, 335.—Ben. & Hesse, 1862a; 1864a–c; 1865a (marine).—Bettend., 1897b, 307–358, pls. 28–32, figs. 1–42 (muscles and sense cells).—Biehringer, 1884a, 26 pp. (anat. develop.); 1884b, 1–28, pl. 1, figs. 1–28; 1888a, 230–235; 1889a, 648–655.—R. Bl., 1886a, 313, 333.—Blochmann & Bettend., 1895a, 216–220, figs. 1–5.—Bos, 1894, 240.—Brand., 1892a, 558–577 (finer structure), pl. 22, 22 figs.—Braun, 1883a, 36, 37; 1889a, 209–400, figs. 1–5, pls. 6–8; 1889k, 620–622; 1890a, 401–560, pls. 9–17; 1890c, 43 (position of excretory pore); 1892a, 561–816, pls. 18–31,

TREMATODA—Continued.

- figs. 1-23; 1893a, 817-926, pls. 32-34, figs. 24-36; 1895b, 5, 6, 120; 1896b, 7 pp., 1 pl., 8 figs.; 1897d, 109-111; 1901d, 258-260.—Bremser, 1824, 131-132.—Brongniart, (1880a).—Buetschli, 1879a, 588-589, 1 fig.—Burm., 1837a, 528; 1856a, 205, 239-252.—Carus, 1863, 476-477.—Cerf., 190—, —Cobbold, 1862a, 24-33, 1 pl., figs. 1-7; 1879b, 4, 14-56.—Cohn, 1902d, 712-718, figs. 1-9; 1902e, 842-843; 1902h, 877-882, 5 figs.; 1903, Apr. 28, 223; 1903, May 30, 34-42; 1903, June 18, 155; 1904, May 17, 278; 1905, July, 56-57; 1905, July, 63.—Cosmovici, 1887a, 121-131.—Crep., 1825, 80-81; 1837a, 309; 1839a, 277.—Deslongchamps, 1824ffif, 743.—Dies., 1850a, 287-288 (subo. of Myzelmintha), 304-414, 472-473; 1855c, 59-70, pls. 1-3 (19 species); 1855d, 163; 1856c; 1858e, 307-390 (type of Myzelmintha aprocta).—Dunglison, 1893a, 1174.—Eichhorst, 1901a, 301.—Eiss, 1838a, 20.—Fischer, 1840, 156.—Gerv., 1873, 51-55.—Giard, 1903, 1225-1226 (in pearl formation).—Goldb., [1855a], 16.—Graeffe, 1860a, 47 (Tremadota).—Gurlt, 1831, 369.—Hahn & Lefèvre, 1884a, 515-549.—Hoyle, 1888a, 535-540, figs. 1-4; (1888b); 1890, 49, 54, 535-540.—Huber, 1894a, 283-287 (bibliography, clinical); 1896, 502, 574.—Ijima, 1889, 97.—Jackson, 1888, 642, 643, 653, 654, 658.—Johnstone, 1907, 170, 177-192.—Joy, 1835a, 504.—Kerbert, 1878a, 271-273; 1881a, 529-578, pls. 26-27, figs. 1-21.—Kholodk., 1898, 2, 23; 1899a, 146-153, 158.—Kolenati, 1857, 11.—Kuech., 1852, 149.—Lampert, 1898a, lxxxii-lxxxiii.—Lankester, 1882b, 227-331, 2 figs.—Lawson, 1861a, 216-223 (affinities); 1861b.—Leuck., 1830a, 612; 1842, 5; 1863a, 448; 1879, 123; 1886, 93, 104.—Linst., 1873i, 51-55; (1877a), 13-14; 1879b, 317; 1883b, in 623-663; [1883b].—Looss, 1892a, 72.—Luehe, 1901, 488.—Maclaren, 1904, 573-618, 3 pls., figs. 1-33 (2 species); 1905, Jan. 31, 20-21; 1905, June, 317.—Manson, 1901, 538-544.—Mayer, 1841, 4, 23, 25.—Milner, 1858, 9.—Mlinarich, 1832, 13.—Mol., 1858, 127; 1861, 191.—Mont., 1888, 83, 84; 1893, 427.—Mueh., 1896, 588-590; 1896; 1897, 243-279, pls. 16-19, figs. 1-17.—Nicoll, 1906, v. 17, 513-527, 2 pls.; 1906, Aug., 445.—Nitzsch, 1819, 397.—Nord., 1840, 596.—Oppenheim, 1900, 181.—Pag., 1857, 56 pp. (larvæ); 1859, 42-46; 1889a, 1-208.—Poir., (1885), 465-624, pls. 23-34; 1885; —, 25-29.—Pratt, 1900a, 645-662, figs. 1-50 (monogenetic, keys); 1900b; 1900, Sept. 7, 371-372; 1902a, 887-910, 953-979, figs. 1-130 (digenetic, keys); 1902; 1905, July, 63.—Ramsey, 1879.—Rawitz, 1898, v. 3, 1409-1410.—Roger, 1901, 94.—Rolleston, 1870, 140, 141, 142, 143.—Schneider, 1866, 13, 325, 337.—Scott, T., 1901, 141.—Sieb., 1850, 668.—Sons., 1893, May 16, 496, 500; 1893, Dec. 2, 742; 1894, Oct. 26, 756.—Staff., 1900, v. 13 (5), 399-414, pl. 26, figs. 1-6.—Steenstrup, 1860, v. 1 (1-6), 112-113.—Stiles, 1896, 206; 1898a, 21, 22, 27.—Tasch., 1879, 232, 233, 234.—Tschudi, 1837, 19.—Tyson, 1903, 3 ed., 1180-1181.—Vaillant, 1879, 108 pp., 55 figs.—Verrill, 1870, 165-166, 173, 175, 176, 177, 178, 179, 213.—Villot, 1882, 505-508.—Wagener, 1883, 120-122.—Wallenstedt, 1847, 6.—Ward, 1895, 238; 1903, 860-873, figs. 4772-4795; 1905, v. 12 (1-2), Jan., 24.—Weinland, 1859, 280.—Wernicke, 1892, v. 15 (6), June, 337-347, 1 pl., figs. 1-22.—Will.-Suhm, 1870, 29 pp., pls. 11-13; 1871, v. 21 (2), June 15, 175-203, pls. 11-13; 1873, v. 2, 51-55.—Zeller, 1872, 1-24; 1872, 168-180; 1873, v. 2, 51-55.—Ziegler, 1895, 549-552, figs. 420-425.—Zuern, 1882, 113, 202.
- , ANATOMY OF: Biehringer, 1884a, 26 pp. (and development); 1884b, 1-28 (and development); 1888a, 230-235 (and development); 1889a, 648-655 (and development).—Goto, 1891c, 103-104.—Looss, 1893a, 10-34; 1893c, 637.—Macé, 1881, Feb. 21, 420-421; 1884, Apr., 354-355 (segmental organ).—Mont., 1888, 130 pp.; 1888, July 19, 120-122.—Pachinger, 1888, 18 pp., pls. 2 (and physiology).—Walter, 1858, 269-297, pls. 11-13 (and histology); 1893, Oct., 636-637.—Wedl, 1857, v. 5 (26), 241-278, pls. 1-4; 1858, 242.—CIRCULATORY APPARATUS (see also excretory): Ben., 1852a, 573-589, figs. 1-2; 1852b, 23-33; 1852c, Sept. 22, 305.—Villot, 1876, v. 82 (23), June 5, 1344-1346; 1882, v. 5 (121), Sept. 25, 505-508.—EPITHELIUM: Blochmann, (1896a), 16 pp., 2 pls.; 1896b, 821-823.—Hein, 1904, 546-585, 3 pls.; 1904, Dec., 653; 1905, Jan. 31, 17-18; 1905, 350-352.—Maclaren, 1903, June 15, 516-524, figs. 1-6; 1904, May 17, 279-280.—EXCRETORY SYSTEM (see also circulatory): Ben., 1882b, 14-18, 2 figs. (and body cavity).—Buetschli, 1879a, 588-589, 1 fig.—Bugge, 1902, 177-234, pls. 21-24; 1905, (July 3), 25-26.—Fraip., 1880a, 397-402; 1880b, 106-107, 265-270; 1880c, 415-456, 1 fig., pls. 18-19; (1881a), vii-x, xxii-xxiv; 1881b, 1-40, pls. 1-2, figs. 1-2; 1881c, 602-604; 1883a, xxxi-xlii.—Kampmann, 1894a, 443-462, pls. 19-20, figs. 1-23; 1894b; 1895a, 843-844.—GENITAL SYSTEM: Darr.—Linst., 1873e, 95-108, pl. 5, figs. 1-6; 1873f, 231-232.—Looss, 1893b, 808-819, figs. 1-4.—Stieda, (1871), (1) 7, 31-40.—MUSCULATURE: Bettend., 1897a, 54 pp., 1 fig., 5 pls.; figs. 1-42 (and sense cells); 1897b, 307-358,

TREMATODA—Continued.

- 1 fig., pls. 28-32, figs. 1-42 (and sense cells).—Blochmann & Bettend., 1895a, 216-220, figs. 1-5 (and sense cells); 1895, 535-536 (and sense cells).—Cerf., 1894g, 949-954, figs. 1-3 (striated); 1894h, 174; 1894i, 571-572; 1895c, 21.—NERVOUS SYSTEM: Gaffron, 1883a, 508-509; (1884a), 109-115, pl. 17; 1885, v. 3, xxvii-xxix.—Havet, 1900b, 351-381, pls. 1-4, figs. 1-28; 1904, v. 2 (3), Dec., 21.—Jammes, 1895a, 268-270; 1895b, 493-494.—Ssinitzin, 1904, July 26, 767-777; 1904, Oct., 532.—Tasch., 1878, v. 51, 3 F, v. 3, 698-699.
- , CALCAREOUS CORPUSCLES OF: Claparède, (1857a), in 99-105; 1859c, in 92-96.
- , CLASSIFICATION OF: R. Bl., 1888a, 541, 570, 585, 587, 597, 632, 636, 652, 653.—Cosmovici, 1887a, 121-131; —, 10 pp.—Mont., 1892, Oct. 7, 213.—Pratt, 1900a; 1902a.—Tasch., 1879, v. 52, 3 F, v. 4, 232-265 (mogenetic).
- , DEVELOPMENT OF: Ben., 1868a, in 4-7 (egg).—Crety, 1892a, 92-97 (egg); 1892c, 396-399.—Erc., 1881, 434-436; 1881, 892-893; 1881e, 98 pp., 3 pls.; 1881f, 28-37; 1882, v. 3, 1-71, pls. 3; [1882a], 239-334, pls. 1-3; 1882b, 37-46; 1882c, 43-111, 3 pls.; 1882d, 439-453, figs. 1-27.—Dowker, 1882a, 8-14, pls. 1-2, figs. A-E.—Fil., 1854a; 1854b; 1855a; 1855b; 1855c; 1857b; 1857c; 1859a.—La Valette, [1855a], 38 pp., 2 pls.; 1859a, 55-57.—Mont., 1891, —; 1892h, 148-150 (spermatogenesis); 1892, v. 9 (3), 112-118, (4), 121-149, pls. 8-9; 1892, 35, 1 pl.; 1892k, 5-8 (egg); 1892l, 3 pp.; 1892, Oct., 618.—Moul., 1855, Apr., 465-467.—Pag., 1881, v. 3 (1), 33-56.—St.-Remy, 1892, 184-188, 10 figs.—Schauinsland, 1883, 465-527, pls. 19-20; 1883, 63 pp., 3 pls.—Schwarze, 1885, 47 pp., 1 pl.; 1885, Dec. 31, 41-86, pl. 3.—Will.-Suhm, 1873, 332.
- , ECTOPARASITIC: Braun, 1889k, 620-622 (excretory pore); 1890c, 43; 1890e, 594-598 (skin).—Dieckhoff, 1891a, 245-276, pl. 9, figs. 1-19; 1892, 485-486.—Goto, 1894a, 1-273, pls. 1-27 (Japan); 1894b, 1-273, pls. 1-27 (Japan); 1894c, 1017-1018 (Japan); 1895a, 386-390 (Japan); 1895b, 244 (Japan); 1895c, 37 (Japan); 1896a, 351-352 (Atlantic Coast of U. S. A.); 1899a, 263-295, pls. 20-21, figs. 1-31; 1899b; 1903a, 109.—Par. & Perugia, 1889, v. 7 (27), Oct. 10, 740-747; v. 12 (v. 22), 86-112.—Tasch., 1878, Sept. 30, 176 (genital organs); 1878, v. 51, 3 F, v. 3, 701; 1879, v. 14 (3), 293-343, pls. 1-2 (marine); 1879, 25-76, pls. 3-4; 1879, 52 pp., 2 pls.; [1879], 19-20.—Vogt, 1877, v. 30 (2), May, 306-342, pls. 14-16 (genital organs); 1877, v. 6, 363-376.
- , ENDOPARASITIC: Braun, 1893d, 465-468.—Villot, 1875, Oct., 302-304 (marine); 1875, v. 3, 55; 1875, v. 81, 475-477; 1878, v. 8, 40 pp., pls. 5-10; 1879, v. 8.
- , GEOGRAPHIC DISTRIBUTION: Lebour, 1905, 100-105, 3 pls. (Northumbria).—Levin., [1881a], 52-84, pls. 2-3 (Greenland); [1881b].—Linst., 1883a, 274-314, pls. 6-9, figs. 1-52 (Turkestan); (1883b); 1886c, 40 pp., figs. 1-55 (Turkestan).—Looss, 1889b, 521-784, figs. a-b, pls. 24-32, figs. 1-90 (Egypt); 1900a, 390-401 (Egypt); 1900b, 458-466 (Egypt); 1900b, 458-466 (Egypt); 1902e, 637-644 (Triest), figs. 1-4; 1902f.
- , HISTOLOGY: Brand., 1891d, 30 pp.; 1892a, 558-577, 22 figs.—Gronkowski, 1902a, 510-536, figs. a-c, pl. 13, figs. 1-16; 1903a, 897-898; 1905, July, 49-50.—Schuberg, 1895, 431-432; (1895), 165-188, pl. 10; 1905, July 13, 23-24.
- , IN COLLECTIONS: Sons., (Pisa Museum), [1890], v. 7, 137-143; [1890], v. 7, Nov. 16, 173-178; 1891, Mar. 2, 290; [1893], Feb. 5, 183-190; 1893, Oct. 28, 566-567.
- , IN VARIOUS ANIMALS: AMPHIBIA: Castle, 1900a (in Rhynchobdellidae).—Hollack, 1905, Feb. 18, 199-200; 1906, Jan. 30, 41 (Rana esculenta).—Macé, (1880), 61-89, pls. 1-4 (frogs); (1882), 32 pp., 4 pls. (frogs).—Vaillant, 1863, v. 4, Jan., 5-6 (Siren lacertina).
- , IN BIRDS: Bonnet, 1883a, 90-95 (Gallus gallus).—Braun, 1901c, 12-19, figs. 1-4; 1901f, 560-568 (revision); 1901g, 895-897, 941-948 (revision).—Hausmann, 1899a.—Kowal., 1898e, 412 (ducks).—Linst., 1888b, 367-369, 1 fig. (in hen's egg); 1888c, 51 (in hen's egg).—Rail., 1898, 412 (ducks); 1900, Mar. 16, 239-242 (hepatic); 1900, Oct., 514; 1901, Dec. 31, 986-987.
- , IN CRAYFISH: Lint., 1892c, 69-70.—Wright, 1884, Apr., 429-430.
- , IN CANADIAN VERTEBRATES: Staff., 1905, 681-694.
- , IN MAMMALS: Braun, 1901e, 311-348.
- , in *Castor fiber*: Bojanus, 1817b, 270-277.
- , in *Chiroptera*: Braun, (1900b), 217-236, pl. 10.
- , in *Bos taurus*: Giard & Billet, 1892a, 613-615 (Tonkin); 1893a, 245 (Tonkin).—Hedley, 1881a, 374-375 (lungs); 1881b, 399-400; 1881c, 27-28.—Littlewood, 1887a, 546.—Stiles, 1898a, 161 pp., 124 figs. (and sheep and swine).
- , in *Equus caballus*: Adams, 1876, 764-765 (liver).

TREMATODA—Continued.

- , in *Oris aries*: Penberthy, 1897, Apr., 238-251.—Sargent, —, Feb., 273
- , in *Elephas indicus*: Cobbold, 1869b, 48-49; 1869c, 47-49.
- , in *Rodentia*: Leidy, 1888e, 126 (muskrat); 1889h, 612 (muskrat).
- , in *Homo sapiens*: Allen, 1881b, 257 (liver).—Ariola, 1905, 607-609.—Busetto, 1862a, 69 (ear).—Cobbold, 1875i, 423; 1875k, 780-781; 1876h, 209-212.—Fagge & Pye Smith, 1902, 4, ed., 475.—Grall, 1887a, 459-470, 4 figs.—Greef, 1905, 171-172 (and fish: in lens); 1905, Nov. 23, 1909; 1905, Dec. 14, 852; 1906, Jan. 1, 25-26.—Stiles, 1904i, 66 pp., figs. 9-88, pls. 1-3, figs. 1-8 (key).—1904k, 162; 1905p, 529; 1906, Jan. 30, 43.
- , IN MOLLUSKS: Leidy, 1877e, 200-202.—Pelseneer, 1900, 262-263 (marine).
- , in *Cardium edule*: Lebour, 1904, 82-84, 1 pl.—Nicoll, 1906, 148-155, 1 pl., 6 figs.; 1906, June 20, 313.
- , in *Ostrea*: Tennent, 1906, Aug., 445; 1906, 635-690, 4 pls.
- , IN FISH (*Pisces*): Ben., 1856d, 502-508, 1 pl., figs. 1-4 (*Sciæna aquila*): (1857g), 142-143 (*Sciæna aquila*).—Ariola, 1899a, 10 pp., pl. 5 (marine); 1899, 129-138, 1 pl.; —, 299.—Hausmann, 1896a, 389-392 (fresh water); 1896b; 1897a, 1-42, figs. 1-12; 1897b.—Lint., 1898c, 507-548, pls. 40-54.—Luehe, 1900w; 1900cc, 677.—Maclaren, 1903, 260-262 (Naples).—Marshall & Gilbert, 1905a, 477-488, figs. 1-14 (*Micropterus*); 1905b, 703.—Pavesi, 1881, v. 14, 615-616.—Par. & Perugia, 1890, v. 1, 59-70 (gills, Italian); 1890, Aug. 29, 310; 1890, 16-32, 2 pls. (Adriatic); 1895, (31); 1895, July 22, 341 (marine); 1896, 135-138 (*Brama raji*); 1896, 2 pp.; —, 653.—Par. & Perugia, 1889-1890, v. 4 (19), 16-32, 2 pls.; —, v. 7 (24), June 6, 774-777.—Sons., 1890, Nov. 16 (*Pagrus orphus*).—Staff., 1904, May 3, 481-495 (Canadian); 1904, Aug. 17, 417; 1906, Jan. 30, 42-43.—Studer, 1884, v. 2 (1083-1091), 11.
- , IN REPTILES: Braun, 1899b, 714-725; 1899e, 627-632; (1901a), 58 pp., 2 figs., pls. 1-2, figs. 1-32; 1901b, 58 pp., 2 figs., 2 pls., figs. 1-32.—Looss, 1901l, 555-569, 618-625; 1902m, 411-894, figs. A-B, pls. 21-32, figs. 1-181 (Egyptian *Chelonia*); 1904c, 25-32; 1905l, 60-61.—McAlpine, 1891, Apr., 40-43 (copperhead).—Odh., 1902, 19-46.—Sons., 1893, Oct. 2, 637 (and amphibians).
- , LARVÆ OF: Fil., 1856b, 83-86; 1857a, 129-132; 1858a, cxlvii.—McIntosh, 1861, in 4 pp., 9 figs. (in *Carcinus mænas*); 1865, v. 5, 201-204, figs. 1-9.—Moniez, 1891, Oct., 22-25.—Sons., (1897), v. 10, 249-253.
- , MONOGENETIC: St.-Remy, 1891, 405-416, pl. 10, figs. 1-40, 449-457; 1891, 1-21, 90-107; 1892, 136-145, 184-191, 224-230, 253-265, pl. 10; 1892, 92 pp., pl. 10, 40 figs.; 1898, 521-571, figs. 1-6.
- , NEW SPECIES OF: Brand., 1895b, 635.—Braun, 1892f, 44-52.—Fuhrmann, 1904, Sept. 23, 58-64; 1904, Nov., 229; 1905, June, 187; 1906, Jan. 30, 41.—Kuhn, 1829b, in 357-368, pl. 17 bis, figs. 1-17.—Lint., 1885b, in 235-255, pls. 13-15, figs. 1-31; 1886f, 249.—Macdonald, 1877, Jan., 209-212, figs. 1-15 (n. g.): 1877.—Poir., 1886, v. 10, 20-40, pls. 1-4, 30 figs.—Setti, 1891, 7 pp.
- , REPRODUCTION OF: Brand., 1891b, 264-267.—Lint., 1872a, 1-5, pl. 1, figs. A-C; 1872i, 99-112.—Moul., 1855; 1856, v. 3, 7-278, pls. 4-9.
- , TREATMENT: French, 1896a, 643-644.
- , *acotylea* Dies., 1858e, 311, subtribe.—Tasch., 1879, 234.
- , *cotylphora* Dies., 1858e, 312, 329, subtribe.—Mont., 1892, Oct. 7, 196.—Tasch., 1879, 234.
- , *monogenea* Tasch., 1879, 235.
- , *plectanophora* Dies., 1858e, 314, 374, subtribe; 1859c, 439.
- TREMATODEA Paul, 1860, 19.
- TREMATODES, see Trematoda.
- TREMATODUM, sometimes used in a collective generic sense, without definite generic position.—Leydig, 1853, 382, pl. 14, fig. 6, teste Dies., 1858e, 316 (syn. of *Tylodelphys craniaria* Dies.).
- canceri locustæ* (Rud., 1810) Linst., 1878a, 315 (in *Palæmon locusta*).
- ranæ* Valentin, 1843, 91, teste Dies., 1850a, 472.
- salmonis lavareti* Linst., 1878a, 266 (in *Coregonus wartmanni*; Greenland), based on Fabricius, —, 269.
- talpæ cœcæ* Dies., 1850a, 472 (in *Talpa cœca*).—Linst., 1878a, 18 (in *Talpa cœca*).
- wachniæ* (Rud., 1819) Linst., 1878a, 238 (in *Gadus wachnia*), based on Tilesius, 1810, 472.

TREMATOIDEA delle Chiaje. 1825a. 12.—Almeida Couto. 1872. 4. 7. 19.—Eichwald. 1829a. 247.—Guenther. 1858. 203-204.—Kuech.. 1855. 7. 179.—Swart. 1862. 5. 33.

TRICHODA Mueller.—Nitzsch. 1827. 69. contains *Cerc. setifera*.

TRICOTYLEA Dies.. 1850a. 290. 425. subtribe of Polycotylea to contain Nitzschia. Phylline. Udonella. Encotyllabe. Trochopus. Tristomum: 1858e. 313. 362.—Brand.. 1888a. 15.—Braun. 1890a. 515.—Goldb., 1855. 19.—Mont., 1888a. 84.—Tasch.. 1878. 564. 565: 1879. 233.

TRIPOS Bory St. Vincent. 1823b. 356. genus of Cercariæ.

TRISSICHYA Cosmovici. (1887a) (contains Epibdella. Tristomum. Udonella).—Mont., 1888a. 84.

TRISTOMA Cuv., 1817. 42-43 (n. *coccineum*).—Baer. 1826a. 125. 126; 1827. 675.—Bell. 1891a. 534-545 (n. sp. from *Histiophorus brevirostris*).—Ben.. 1858a. 1861a. 11. 38. 168.—Ben. & Hesse. 1864. 61. 65. 66. 76-77.—Bettend., 1897a. 17: 1897. 321.—Bl.. 1847. 321.—Brand.. 1894a. 308.—Braun. 1889k. 621: 1890a. 411. 412. 415. 420. 427. 430. 450. 451. 453. 454. 455. 461. 463. 464. 465. 468. 471. 473. 474. 479. 481. 482. 483. 484. 490. 491. 511. 515. 516. 517. 518. 519. 523. 526. 527. 528: 1891d. 422: 1893a. 889.—Bremser. 1824. 134.—Burm.. 1837. 530: 1856a. 251.—Carus. 1863. 477.—Cerf.. 1899a. 422. 435.—Cobbold. 1877. 238: 1879b. 5. 41.—Cosmovici. 1887a. 128.—Crep.. 1837. 323: 1839. 289. 291.—Deslongchamps. 1824mmm. 754: 1830h. 392.—Dies.. 1835. 10: 1836a. 1-16. pl. 1 (monograph: 1836b: 1838. 77-89: 1839a. 234: 1850a. 290. 428-431 (syns. *Capsala* Bosc. Phylline Oken). 425 (of Nitzsch. syn. of Nitzschia). 426 (of Rathke. syn. of Phylline). 427 (of Nord.. syn. of Encotyllabe Dies.). 428 (of Dies.. syn. of Trochopus): 1858e. 313. 365 (syns. *Capsala*. Phylline).—Duj.. 1845a. 321-322.—Eichwald. 1829a. 249.—Fischer. 1840a. 158.—Gamb.. 1896a. 73.—Goldb.. 1855a. 20.—Goto. 1891a. 161. 184: 1893a. 798. 799: 1894a. 237.—Haswell. 1887a. 286. 291: 1892a. 459: 1892b. 150: 1893e. 114. 118. 122. 144.—Hémond. 1827. 9.—L'Herminier. 1826. 10.—Hoyle. 1890. 535. 539 (all parasitic on fishes).—Ijima. 1884a. 638.—Jackson. 1888. 642. 643. 644. 646. 647. 648. 653.—Johnston. 1865a. 33.—Joy. 1835a. 504.—Kerbert. 1881a. 544. 554. 572.—Leuck.. 1863a. 457. 461. 462. 463. 464. 465.—Looss. 1892. 72: 1894a. 145. 146.—Massa. 1906. 43. 45. 48: 1906. 51 (of Tasch.. syn. of Trochopus Dies.).—Mont., 1888a. 10. 11. 13. 23. 26. 30. 32. 37. 42. 45. 50. 53. 54. 56. 57. 58. 59. 60. 65. 83. 84. 86. 87. 97: 1889. 117. 118: 1891. 1892. 101. 103. 104. 105. 106. 107. 108. 111. 116. 119. 120. 123: 1892. Oct. 7. 180. 213 (gen. of Tristominæ): 1893. 75: 1899. 96. 97. 98. 99. 100. 101: 1903. 335 (fam. Tristomidæ: subf. Tristominæ).—Moul.. 1856a. 10.—Nitzsch. 1826. 150 (also Tristomum).—Nord.. 1832a. 60.—Par. & Perugia. 1890. 13.—Pratt. 1900. 646. 649. 655. 658. fig. 9.—Rud.. 1819a. 123. 427-428. 554.—St.-Remy. 1891. 1072-1074 (genital organs): 1892. 702: 1898. 534.—Schneider. 1866. 334.—Scott. T.. 1901. 144.—Setti. 1899. 117-125. figs. 1-3. 1899: 71-84 (revision): 1899. 7 pp.: 1899. 5 pp.: 1899. 9 pp., 3 figs.—Stoss.. 1898. 5.—Tasch.. 1878. 176: 1878. 563. 564. 565. 566 (syns. *Capsala*. Phylline. Hirudo. sp. Abildg.. Nitzschia Baer): 1879. 30. 32. 33. 34. 36. 37. 41. 43. 44. 50. 57. 58. 60. 62. 64. 65 (Tristomum). 68. 70. 71: 1879. 233. 236. 238.—Wallenstedt. 1847. 7.—Ziegler. 1883. 552.

1826: Tristomum Nitzsch.. 1826. 150. for Tristoma.

1879: Tristomum Tasch.. 1879. 65. misprint.

1888: Tristomun Mont.. 1888a. 28. misprint.

1899: Tristomon Setti. 1899. 84. misprint.

aculeatum Couch. —.—St.-Remy. 1898. 535 (=T. molæ).—Setti. 1898. 311 (syn. of rudolphianum).—Tasch.. 1878. 570.

biparasiticum Goto. 1894a. 251-253 (in *Parapetalus. Thynnus albacora*: Misaki. Japan): 1899. 272.—Mont.. 1899. 86. 89.—Setti. 1898. 311: 1899. 80: 1899. 124.—St.-Remy. 1898. 539.

blanchardi Tasch.. 1878. 567. for blanchardii.

blanchardii Dies.. 1850a. 430 (in *Squalus* sp.: New Zealand (T. squali Bl.. renamed).—Mont.. 1891. 1892. 101. 103. 123.—Setti. 1898. 311 (blanchardi).—Tasch.. 1878. 564. 567 (blanchardi).

cephala Risso. 1826. 262-263 (t. h. *Tetraodon luna*: Europe).—Dies.. 1850a. 431.—Kroyer. 1852-53a. 745 (cephalo) (in *Orthogoriscus mola*).—Linst.. 1878a.—Setti. 1898. 311.—St.-Remy. 1898. 535 (=T. molæ).—Tasch.. 1878. 564 (cephalo).

TRISTOMA—Continued.

cephalo Kroyer, 1852-53a, 745.—Tasch., 1878, 564.—For *cephala*.

coccineum Cuvier, 1817, 42-43, pl. 15, fig. 10, pl. 36 bis, figs. 1-3 (in la mole, le xiphias, etc.).—Bell, 1891a, 534, 535.—Ben., 1858a, 1861a, 37, 189.—Ben. & Hesse, 1864, 61, 76, 77 (*coccinea*).—Blainv., 1828a, 569 (to *Capsala*).—E. Bl., 1847, 322-325, pl. 14, fig. 2.—Braun, 1890a, 407, 420, 427, 458, 459, 487, 529, 547, 552; 1891d, 422.—Bremser, 1824, 134; 1824c, pl. 10, figs. 12-13.—Burm., 1837a, 530.—Costa, 1846a, 54.—Crep., 1837, 323; 1839, 289.—Dies., 1836a, 11-12, pl. 1, figs. 1-13; 1850a, 429 (of Cuv., includes *T. coccineum* of Cuv., Guérin, Gray, Costa, 1846, Bl.; *Capsala coccinea* Blainv., Moquin-Tandon; *T. integrum* Dies.) (on *Xiphias gladius*); 1850a, 429 (of Rud., 1819a, 123, 427, pl. 1, figs. 7-8, renamed *T. rudolphianum*; includes also *T. coccineum* of Brem., Nitzsch, Dies., Duj., Yarrell, Cuv., pl. 36 bis, figs. 2-3; *Phylline coccinea* Schweigger, *Capsala coccinea* Blainv., Nord.; *Trist. mola* Bl.) (in *Orthogoriscus mola*).—Duj., 1845a, 322-323.—Goto, 1899, 272.—Gray, —, pl. 9, fig. 10.—Johnston, 1865a, 33.—Juel, 1889, 37.—Kerbert, 1881a, 533.—Kølliker, 1849, 21, 26.—Kroyer, 1838-40a, 597 (in *Xiphias gladius*).—Lang, 1880.—Leuck., 1863a, 450, 455.—Looss, 1885b, 5, 10.—Linst., 1903, 279.—Lint., 1898, 509-510, pl. 40, fig. 9; 1900, 278; 1901, 414, 448.—Lönnberg, 1891, 76.—Mont., 1888a, 13, 28, 52; 1891, 1892, 101, 102, 103, 110, 113, 114, 116, 123, 124; 1893, 4-5.—Nitzsch, 1826, 150.—Nord., 1840, 602 (syn. of *Capsala sanguinea*).—Par., 1887.—Par. & Per., 1889; 1890, 5.—Pratt, 1900, 655, fig. 9; 657, 658.—Risso, 1826, 262.—Rud., 1819a, 123, 428-430.—St.-Remy, 1898, 534, 536, 538.—Scott, T., 1901, 144.—Setti, 1898, 311, 313; 1899, 71, 72, 73, 74, 75, 76, 77, 78, 83; 1899, 124.—Sons., 1890, 173 (in *Xiphias gladius*, *Tetrapturus belone*, *Orthogoriscus mola*; Sicilia, Napoli).—Staff., 1904, May 3, 482 (on *Xiphias gladius*; Canada).—Stoss., 1898, 5.—Tasch., 1878, 564, 567, 569, 570, 571, 572 (syn. *Capsala coccinea*) (in *Orthag. mola*, *Xiphias gladius*); 1878, 176; 1879, 59.—Wagener, 1857, 72.—Yarrell, —, 468.—Ziegler, 1883, 545.

cornutum Verrill, 1875, 40, on *Tetrapturus albidus*; Block Island.—Pratt, 1900, 658.—St.-Remy, 1898, 536 (on Tet. alb.; North America).—Setti, 1898, 311, 312; 1899, 125.

elegans (Baer, 1826) Ben. & Hesse, 1864, 64, 77, of the sturgeon.

elongatum Nitzsch, 1826, 150-151 (on Stör).—Ben., 1858a, 1861a, 20.—Ben. & Hesse, 1864, 67 (syn. of *Nitzschia elegans*); 1864, 70.—Braun, 1889, 758; 1889h, 19 Aug., 433-434; 1889k, 621, 622 (syn. *Nitzschia elegans* Baer).—Crep., 1846, 149.—Dies., 1835, 12-14; 1836a, 12; 1850a, 426 (syn. of *Nitzschia elegans*).—Duj., 1845a, 323.—Kølliker, 1849, 21.—Nord., 1840, 602 (to *Capsala*).—Tasch., 1878, 563, 564, 567-568 (in *Accipenser sturio*); 1879, 56.—Reported also for *Acipenser guldenstädtii*.

excavatum Nord. in Dies., 1850a, 428 (syn. of *Encotyllabe nordmanni*).

foliaceum Goto, 1894a, 248 (host unknown).—Mont., 1899, 86.—St.-Remy, 1898, 538.—Setti, 1898, 311, 313; 1899, 119, 124; 1899, 79, 80.

hamatum Rathke, 1843, 238-242, pl. 12, figs. 9-11 (syns. *Hirudo hippoglossi* Mueller, *Phylline hippoglossi* Oken, *Ertopdella hippoglossi* Blainv.; in *Pleuronectes hippoglossus*; Europe).—Ben., 1858a, 1861a, 19, 21 (syn. of *Epibdella hippoglossii*).—Ben. & Hesse, 1864, 68, 69 (syn. of *Epibdella*).—Dies., 1850a, 427 (syn. of *Phylline hippoglossi*).—Johnston, 1865a, 32.—Kølliker, 1849, 21.—Odh., 1905, 370 (syn. of *Epibd. hipp.*).—Tasch., 1879, 568 (syn. of *T. hippoglossi*).—Reported for *Pleuronectes hippoglossus*.

hippoglossi Oken, see Tasch., 1878, 568; 1879, 59, to (*Epibdella*).

histiophori Bell, 1891a, 534-535 (in *Histiophorus brevirostris*).—Goto, 1894a, 238; 1899a, 271 (syn. of *T. leve* Verrill).—Mont., 1899, 86.—St.-Remy, 1898, 535 (= *T. leve*).—Setti, 1898, 311, 312, 313; 1899, 79, 83.

integrum Dies., 1850a, 429, MS. (syn. of *T. coccineum*).—Setti, 1898, 311.

interruptum Mont., 1891, 1892g, 101, 105, 116, 122, 123, pl. 12, figs. 17-19 (in *Thynnus brachypterus*; Naples?); 1899, 86, 97.—Braun, 1891d, 422.—Goto, 1894a, 238.—St.-Remy, 1898, 535.—Setti, 1898, 311, 312; 1899, 117-119, 124, fig. 1; 1899, 80, 81, 84.—Reported also for *Thynnus thynnus*.

leve Verrill, 1875, 40, in *Tetrapturus albidus*; Block Island.—Goto, 1899a, 271-273 (*leve*, syns. *histiophori* and *ovale*), pl. 20, figs. 10-12.—Linst., 1906, 176 (= *T. ovale* Goto).—Lint., 1898, 509, pl. 40, figs. 7-8; 1901, 414, 445.—Mont., 1899, 86; 1899, 108.—Pratt, 1900, 658.—St.-Remy, 1898, 535-536, 539 (on Tet. alb.; North America).—Setti, 1898, 311; 1899, 79, 83; 1899, 124.—Reported for *Gymnosarda pelamys*, *Tetrapturus albidus*, *Histiophorus orientalis*, *Cymbrium* sp.

TRISTOMA—Continued.

læve var. *armata* Goto, 1899a, 273 (*læve* of Verrill, and *histiophori* of Bell).

læve var. *inermis* Goto, 1899a, 273 (T. ovale renamed).

læve Goto, 1899a, 291, for *læve*.

levinseni Setti, 1898, 311, 312; 1899, 120–121, 124, fig. 2, for *levinseni*.

levinseni Mont., 1891, 101, 122, 123, pl. 6, fig. 21 (in *Thynnus* sp.).—Braun, 1891d, 422.—Goto, 1894a, 238.—Setti, 1898, 311, 312; 1899, 120–121, 124, fig. 2 (*levinseni*).

maculatum Rud., 1819a, 123, 430–431, pl. 1, figs. 9–10 (includes *Capsala martinieri* Bosc, *Phylline diodontis* Oken) (in *Diodon*).—Ben. & Hesse, 1864, 76.—Braun, 1890a, 529, 547, 550 (in *Diodon* sp.; California).—Dies., 1835, 10–11; 1836a, 10; 1850a, 430 (syns. *Caps. mart.*, *Phylline diodontis*, *Caps. maculata*).—Duj., 1845a, 322, 445, 449, 450, 451, 455, 456, 458, 460, 465, 483, 512, 529, 547, 551 (in *Orthag. mola*; Atlantic Ocean (England), Mittelmeer (Nizza, Naples, Palermo, Trieste)); 1892a, 617.—Cerf., 1898b, 345.—Dies., 1850a, 429 (of Bl., syn. of *T. rudolphianum*).—Fischer, 1883a, 22.—Goto, 1891a, 161; 1899, 272.—Haswell, 1892a, 459; 1893e, 121, 144, 145.—Heath, 1902, 127, 128, 131, 132.—Hoyle, 1890, 537.—Jackson, 1888, 644, 650.—Johnston, 1865a, 33.—Kath., 1894a, 138.—Knoch, 1894, 5, 11, 17.—Lint., 1901, 408, 414, 466.—Loennberg, 1891, 76.—Looss, 1885b, 12; 1894a, 146, 154.—Maclaren, 1904, 585, 589, 590, 608.—Mont., 1888a, 28 (*Tristomun*); 1888a, 7, 10, 13, 16, 17, 19, 23, 28, 29, 33, 50, 51, 52; 1890, 418; 1891, 101, 104, 107, 116, 118, 119, 120, 122, 123, pl. 5, fig. 4; 1892, Oct. 7, 172; 1893, 5–7; 1893, 77; 1899, 97, 98.—Par. & Perugia, 1889, 741, fig. 2 (in *Mola aspera*); 1890, 741, fig. 2 (in *Mola aspera*); 1890, 5.—Par., 1894, 549, 677, 680.—Poir., 1885, 138, 139, 147.—Pratt, 1900a, 658.—St.-Remy, 1898, 534, 535, 537.—Scott, 1901, 144 (in *Orthagoriscus mola*; W. coast Scotland); 1905, 118 (in Scott, 1901, pl. 8).—Setti, 1898, 309, 311; 1899, 124; 1899, 80, 81, 83.—Sons., 1890, 173 (in *Orthag. mola*); 1891, 265.—Staff., 1904, May 3, 482 (on *Mola mola*; Canada).—Stoss., 1891, 111; 1896, 191; 1898, 5–6.—Tasch., 1878, 564, 567; 1879, 232–265; 1880, 12 Jan., 17–18.

nordmanni (Dies., 1850) Tasch., 1878, 568 (syn. *Encotyllabe nordmanni*).

nozawæ Goto, 1894a, 249–251 (in *Thynnus sibi*; Osatsube (Hokkaido)).—Mont., 1899, 86.—Setti, 1898, 311; 1899, 80, 84 (*nozawai*); 1899, 122, 123, 124.—St.-Remy, 1898, 538–539 (*nozawai*).

nozawai St.-Remy, 1898, 538, for *nozawæ*.

onchidiocotyle Setti, 1899, 121–123, fig. 3 (in “tonno” at Portoferraio).—Par., 1899, 3; 1902, 3 (in *Thynnus thynnus*; Elba).

ovale Goto, 1894a, 241–244 (in *Histiophorus orientalis*, H. sp.; Misaki); 1899a, 271 (syn. of *T. læve*).—Mont., 1899, 86; 1899, 108.—St.-Remy, 1898, 535 (= *T. læve*).—Setti, 1898, 311; 1899, 79, 83.

ovata (Goto, 1894) Heath, 1902a, 132, apparently for *Epibdella ovata*.

pagelli (Ben. & Hesse, 1863) Tasch., 1878, 569 (syn. *Encotyllabe pagelli*).

papillatum Ben., 1858a, 1861a, 38 (refers to *Koelliker*, 1849, 21, pl. 2).—Mont., 1893, 12.

papillorum Juel, 1889, 14, misprint.

papillosum Dies., 1836a, 313–316, pl. 17, figs. 13–16 (t. h. *Xiphias gladius*); 1850a, 430–431 (syn. *Capsala papillosa*) (in *Orthagoriscus mola*; Naples, *Tetrapturus belone*, Messina; *Xiphias gladius*; Panormi).—Ben., 1858a, 1861a, 169, 175, 176.—Ben. & Hesse, 1864, 66, 77.—Brand., 1891d, 14, 20.—Braun, 1883a, 45; 1889k, 621, 622; 1890a, 409, 419, 420, 424, 427, 430, 437, 438, 441, 444, 445, 456, 458, 487, 529, 547, 552; 1890b, 125; 1891d, 422; 1893b, 177.—Crety, 1893a, 384.—Duj., 1845a, 323.—Goto, 1894a, 237.—Grube, —, 49.—Juel, 1889, 37.—Koelliker, 1846, 469; 1847a, 469; 1849b, 21–27, pl. 2, figs. 1–4 (anatomy).—Kerbert, 1881a, 533.—Kroyer, 1852–53a, 745 (in *Orthag. mola*).—Linst., 1903, 280.—Looss, 1885b, 5, 10.—Mont., 1888a, 7, 16; 1889, 118; 1891,

TRISTOMA—Continued.

- 99, 101, 102, 103, 105, 110, 113, 114, 116, 119, 123, 124, pl. 5, figs. 1-3; 1893, 79.—Nord., 1840, 602 (to Capsala).—Par., 1889, 2-3; 1894, 543, 680, 698; 1902, 2 (in *Xiphias gladius*; Elba).—Par. & Per., 1890, 5.—Scott, T., 1901, 144.—Setti, 1898, 311, 312; 1899, 71, 72, 73, 74, 75, 76, 77, 83; 1899, 124.—Shipley, 1898, 354.—Sons., 1890, 173; 1891, 265 (in *Orthag. mola*).—Stoss., 1885, 162; 1898, 6.—Tasch., 1878, 701; 1878, 564, 567, 569, 570, 572 (syn. Caps. pap.): 1878, 176; 1879, 57, 59.—Wagener, 1857, 72.—Ziegler, 1883, 545.—Reported also for *Carcharias glaucus*.
- pelamydis* Tasch., 1878, 176; 1878, 569, 570 (in *Pelamys sarda*; Naples).—Braun, 1890a, 418, 487, 494, 497, 499, 519, 529, 547, 551.—Mont., 1888a, 86, 87; 1889, 117; 1891, 101, 105, 116, 123, pl. 6, fig. 20; 1899, 97.—Par., 1894, 680; 1902, 2 (in *P. sarda*; Elba).—Par. & Per., 1890, 5.—Setti, 1898, 311; 1899, 80, 81, 82; 1899, 124.—Sons., 1890, 173 (in *P. sarda*; Pisa).—Stoss., 1898, 6.
- perugiai* Setti, 1898, 7 pp., 1 fig. (on *Tetrapturus belone* Raf.; Spezia); 1898, 308-313, 1 fig.; 1899, 77, 79; 1899, 124.—Mont., 1899, 86.—St.-Remy, 1898, 539-540.
- pini* (Ben. & Hesse, 1863) Tasch., 1878, 568.—Massa, 1906, 56 (to *Trochopus*).
- rhombi* (Ben. & Hesse, 1863) Tasch., 1878, 568.—Massa, 1906, 58 (to *Trochopus*).
- rotundum* Goto, 1894a, 245-248, pl. 24, figs. 6-9 (in *Xiphias gladius*; Misaki).—St.-Remy, 1898, 537-538.—Setti, 1898, 311, 313; 1899, 77, 78, 83 (syn. of *T. coccineum*).
- rudolphianum* Dies., 1850a, 429 (t. h. *Orthagoriscus mola*; Anglia) (new name for *Capsala sanguinea* Blainv., *T. molæ* Blanchard, 1847, *T. coccineum* of Rud., *Phylline coccinea* Schweigger).—Johnston, 1865a, 33.—Kroyer, 1838-40a, 597; 1852-53a, 745 (in *Orthag. mola*).—Lint., 1898, 510; 1900, 281; 1901, 408, 414, 466.—Setti, 1898, 311 (syns. *aculeatum* Couch, *cephala* Risso, *molæ* Bl.); 1899, 84.—Stoss., 1898, 5.—Tasch., 1878, 564, 567.—Reported also for *Mola mola*.
- scianæ* Ben., Tasch., 1878, 568.
- sinuatum* Goto, 1894a, 239-241 (in *Histiophorus* sp.; Misaki); 1899a, 272.—Mont., 1899, 89; 1899, 108 (spelled also *sinuatuun*, 109).—St.-Remy, 1898, 536-537, 539.—Setti, 1898, 309, 311; 1899, 124.
- sinuatuun* Mont., 1899, 109, misprint.
- soleæ* (Ben. & Hesse, 1863) Tasch., 1878, 568; 1879, 59 to (*Phylonella*).
- squali* E. Bl., 1847, 327-328 (t. h. *Squalus*; New Zealand).—Ben. & Hesse, 1864, 76.—Braun, 1890a, 529, 547, 552.—Cuvier, —, pl. 36, figs. 3, 3a.—Dies., 1850a, 430 (syn. of *T. blanchardii*).—Setti, 1898, 311; 1899, 84; 1899, 125.—Tasch., 1878, 564, 567.
- sturionis* (Abildg., 1794) Cuvier, 18—, pl. 36, figs. 4-4a or Bl., 1847, 329-330.—Ben. & Hesse, 1864, 67 (of Bl. syn. of *Nitzschia elegans*).—Dies., 1850a, 426 (syn. of *Nitzschia elegans*).—Johnston, 1865a, 34.—Tasch., 1878, 568 (of Bl. syn. of *T. elongatum*).
- tubiporum* Dies., 1836a, 14-15, pl. 1, figs. 14-16 (in *Trigla hirundo*); 1850a, 428 (renamed *Trochopus longipes* as type of *Troch.*).—Ben. & Hesse, 1864, 74, 75, 76, 77 (to *Troch.*).—Duj., 1845a, 323.—Massa, 1906, 43; 1906, 53, 54 (to *Troch.*).—Nord., 1840, 602 (to *Capsala*).—Sons., 1891, 261.—Stoss., 1898, 7 (in *Trigla hirundo*; Trieste).—Tasch., 1878, 563, 564, 568 (in *Trig. hir.*).
- uncinatum* Mont., 1889h, 117-118, pl. 4, figs. 1-7 (in ?*Pleuronectes*; Coll. Leuck.); 1889i, 516; 1891, 101, 116, 123; 1893.—Braun, 1890a, 487, 497, 529, 547, 551 (in *Hippoglossus* sp.).—Goto, 1894a, 237.—Setti, 1898; 1899, 124.
- TRISTOMATIDÆ Gamb., 1896a, 53, 55, 73.—Scott, T., 1901, 141, 142.
- TRISTOMATINÆ Gamb., 1896a, 73.
- TRISTOME [French] Blainv., 1824a, 515 ("Nouveau genre que M. Bosc avait nommé capsule pour un animal parasite sur les branchies des poissons, que je regarde de la famille des sangsues").
- TRISTOMEÆ Tasch., 1879, 56, 57, 67; 1879, 235, 238.—Braun, 1883a, 58; 1890a, 516, 517, 523, 524, 525; 1890b, 127.—Cerf., 1894, 946, 948; 1895h, 914, 919; 1898b, 36.—Haswell, 1892a, 457.—Jackson, 1888, 644, 653 (includes: *Tristomidæ*, *Monocotylidæ*, *Udonellidæ*).—Juel, 1889, 14.—Hoyle, 1890, 539 (includes: *Tristomidæ*, *Monocotylidæ*, *Udonellidæ*).—Mont., 1888a, 15, 86 (*Ttistomeæ*); 1888a, 7, 10, 11, 12, 13, 15, 17, 18, 20, 21, 26, 27, 31, 32, 34, 36, 37, 42, 47, 48, 49, 50, 53, 54, 56, 67, 70, 86, 87, 88, 96, 108, 110; 1891, 108.—Par. & Per., 1890, 5.—Sons., 1890, 175.
- 1888: *Ttistomeæ* Mont., 1888a, 15, 86, misprint.

- TRISTOMIDÆ** Cobbold, 1877f, 326; 1879b, 4.—Braun, 1890a, 516, 517, 519, 523, 526, 538; 1893a, 889; 1896b, 7.—Cerf., 1894, 946, 948; 1894k, 936–948, figs. 1–6; 1894l, 175; 1895a, 21; 1895b; 1898b, 361; 1899a, 411.—Haswell, 1887a, 294, 299; 1892a, 457; 1893c, 114, 125.—Hoyle, 1890, 539 (*Tristomum*).—Jackson, 1888, 653 (*Tristomum*).—Mont., 1888a, 7, 15, 16, 19, 23, 30, 31, 34, 35, 67, 86, 87, 88, 96, 107, 108; 1891, 101, 108, 111, 122; 1891, 99–134, 1 fig., pls. 5–6, 41 figs.; 1892, Jan. 15, 99–134, 1 fig., pls. 5–6, figs. 1–41; 1892, Oct. 7 (fam. of *Eterocotylea*; contains *Tristominae*, *Encotyllabinae*, *Udonellinae*); 1893, 21; 1899, 77; 113; 1903, 335 (contains subf. *Tristominae* (g. *Tristomum*, *Trochopus* [= *Placunella*]; 2. *Acanthocotylinae* (g. *Acanthocotyle*); 3. *Ancyrocotylinae* (g. *Ancyrocotyle*, *Epibdella* [= *Phyllonella*], *Nitzschia*); 4. *Encotyllabinae* (g. *Encotyllabe*); 1905, 68.—Muehl., 1898, 17.—Pratt, 1900, 646 (includes: *Tristominae*, *Encotyllabinae*, *Udonellinae*), 648.—St.-Remy, 1891, 55 pp., 2 pls.; 1891, 11 May, 1072–1074 (genital organs); 1892, 30 May, 702–703; 1892?, 1–55; 1892, 2 Oct., 615–616; 1898, 522, 532.—Schneidemuehl, 1896, 296.—Scott, 1901, 141.—Stoss., 1898, 5.—Tasch., 1879, (of Ben.) 68; 1879, 235.
- TRISTOMIDEA** Carus, 1863, 477.—Mont., 1888a, 84.
- TRISTOMIDES** Tasch., 1879, 235.—E. Bl., 1888a, 541 (embraced in *Polystomiens*).—Mont., 1888a, 86.
- TRISTOMIDI** Mont., 1892g, 99–134, figs. 1–41, for *Tristomidæ*.
- TRISTOMII** E. Bl., 1847, 321.
- TRISTOMINÆ** Braun, 1893a, 889.—Mont., 1892, Oct. 7, 213 (subf. of *Tristomidæ*, contains *Tristomum*, *Nitzschia*, *Epibdella*, *Trochopus*, *Acanthocotyle*); 1899, 81, 113; 1903, 335 (f. *Tristomidæ*).—Pratt, 1900, 646, 648 (includes: *Tristoma*, *Nitzschia*, *Epibdella*, *Phyllonella*, *Trochopus*, *Acanthocotyle*, *Placunella*).—St.-Remy, 1898, 532.
- TRISTOMUM**, see *Tristoma*.
- TRISTOMUN** Mont., 1888a, 28 (for *Tristomum*).
- TRISTONUM** Setti, 1899, 84, for *Tristomum*.
- TROCHOPUS** Dies., 1850a, 290, 428 (m. *longipes*) [not Carpenter, 1898, insect]; 1858e, 313, 365.—Ben., 1858a, 1861a, 38.—Ben. & Hesse, 1864, 66, 74.—Braun, 1890a, 411, 412, 415, 451, 465, 469, 511, 515, 516, 517, 519, 523, 526, 528; 1891d, 422; 1893a, 889.—Burm., 1856a, 251.—Gamb., 1896a, 73.—Goldb., 1855a, 20.—Massa, 1903, 252–255; 1906, 43–71 (syns.: *Capsala* Nord., *Trist.* Tasch., *Placunella* Ben. & Hesse).—Mont., 1888a, 7, 10, 11, 13, 52, 66, 86, 87, 97; 1891, 105, 107, 111, 124, 125; 1892, Oct. 7, 213 (gen. of *Tristominae*); 1899, 98; 1903, 335= *Placunella* (subf. *Tristominae*; f. *Tristomidæ*).—Pratt, 1900, 646, 648 (key).—Scott, 1901, 143; 1901, in 120–153, 2 pls.—St.-Remy, 1898, 534.—Sons., 1891, 260–261.—Stoss., 1898, 7.—Tasch., 1878, 566 (syn. of *Tristomum*).
- differeus* Sons., 1891, 261 (in *Cantharus lineatus* Mont.).—Braun, 1891d, 422.—Massa, 1903, 255 (in *C. lin.*); 1906, 44, 46, 53, 60–61, 65, pl. 2, figs. 24, 25, 26 (syn. *T. longipes* Sons., 1890) (in *C. lin.*; Pisa).
- diplacanthus* Massa, 1903, 254 (in *Trigla hirundo*): 1906, 45, 46, 53, 56, 64, 65, 66, pl. 2, figs. 3, 4, pl. 3, fig. 33 (syn. *Placunella pini* Scott, 1901) (in *T. hir.*; Scotland).
- exacanthus* Par. & Perugia, 1889.—Massa, 1903, 255 (in *Serranus gigas*).—For *hexacanthus*.
- heteracanthus* Massa, 1903, see *heteracanthus*.
- heteracanthus* Massa, 1903, 252, 254 (in *Trigla corax*); 1906, 46 (*heteracanthus*), 48, 51, 53, 55, 57, 62, pl. 2, figs. 8, 9, 10, 11, pl. 3, figs. 27, 31, 37, 38, 39, 40, 41 (syns.: *T. longipes* Sons., *T. tubiporus* Sons.) (in *Trig. co.*; Naples).
- hexacanthus* (Par. & Perugia, 1889) Massa, 1906, 45, 46, 47, 53, 59–60, 65, pl. 2, figs. 15, 16, 17, pl. 3, figs. 28, 36 (in *Serranus gigas*; Genova).
- lineatus* Scott, 1901, 143–144, pl. 8, fig. 18 (in *Trigla lineata*; Clyde); 1905, 118.—Massa, 1903, 254 (in *Trigla lineata*); 1906, 45, 46, 52, 61, pl. 2, figs. 5, 6, 7, pl. 3, figs. 32, 35 (in *Trigla lineata*; Scotland).
- longipes* Dies., 1850a, 428 (= *Trist. tubiporum* 1835, renamed) (in *Trigla hirundo*); 1858e, 365.—Ben. & Hesse, 1863, 75; 1864, 75 (syn. of *T. tubiporus*).—Kroyer, 1838–40a, 582 (in *Trig. hir.*).—Massa, 1906, 53, 55 (syn. of *T. tubiporus* Dies.), 60 (of Sons., 1890) (syn. of *T. differeus* Sons.), 62 (syn. of *T. heteracanthus* Massa).—Mont., 1891, 123, 124.—Sons., 1891, 260, 261.—Stoss., 1898, 7 (in *Trig. hir.*; Trieste).—Tasch., 1878, 564, 565, 568 (syn. of *T. tubiporum*).

TROCHOPUS—Continued.

micracanthus Massa, 1903, see *micrachanthus*.

micrachanthus Massa, 1903, 255 (in *Trigla hirundo*); 1906, 46, 53, 56, 63, 65, 66, pl. 2, figs. 21, 22, 23, pl. 3, fig. 29 (in *Trigla hirundo*; Genova).

microcanthus Massa, 1906, 66, for *micracanthus*.

onchacanthus Massa, 1906, 44, 46, 53, 65–66, pl. 2, figs. 12, 13, 14, pl. 3, fig. 30 (host unknown; Trieste).

pini (Ben. & Hesse, 1863) Massa, 1903, 254 (in *Trigla pini*); 1906, 46, 53, 55, 56–58, 63, 65, 66, pl. 2, fig. 2 (syns.: *Placunella pini* Ben. & Hesse, *Trist. pini* Tasch., *Troch. tubiporus* Sons.) (in *Trig. pini*, *T. hirundo*, *T. corax*; Naples).

rhombi (Ben. & Hesse, 1863) Massa, 1903, 255 (in *Rhombus maximus*); 1906, 45, 46, 53, 58–59, 65, pl. 2, fig. 1 (syns.: *Placunella rhombi* Ben. & Hesse, *Trist. rhombi* Tasch.) (in *Rh. max.*; Brest).

tubiporus (Dies., 1835) Ben. & Hesse, 1864, 66, 75–76, pl. 6, figs. 8–13 (syns.: *Trist. tubiporum*, *T. longipes*) (in *Trigla hirundo*).—Braun, 1890a, 418, 424, 488, 528, 547, 552.—Massa, 1903, 253, 254 (in *Trig. hir.*); 1906, 44, 46, 53–55 [56, 57 (of Sons., 1901, 200, syn. of *T. pini* Ben. & Hesse)], 60, [62 (of Sons., 1891, 260, syn. of *T. heteracanthus*)], 65, 66, pl. 2, figs. 18, 19, 20, pl. 3, fig. 34 (syns.: *Capsala tubipora* Nord., *Trist. tubiporum* Dies.; *Troch. longipes* Dies.).—Mont., 1888a, 66; 1891, 104, 124, pl. 5, fig. 11, pl. 6, figs. 12–16.—Par. & Perugia, 1890, 5.—Pratt, 1900, 655, 657, fig. 7.—St.-Remy, 1898, 535.—Scott, A., 1901, 345; 1901, 143 (in *Trigla hirundo*).—Sons., 1891, 260, 261.—Stoss., 1898, 7.—Reported also for *Cantharus lineatus*.

TTISTOMELE Mont., 1888a, 15, 86, misprint for *Tristomea*.

TURBINILLA Bory St.-Vincent. 1823b, 356, genus of *Cercariées*.

TYLODELPHIS Pag., 1857, 38, pl. 4, fig. 7.—Mont., 1888a, 84.—Villot, 1898, 542 (for *Tylodelphys*).

TYLODELPHUS Kroyer, 1838–40a, 579.—Linst., 1878a, 290, for *Tylodelphys*.

TYLODELPHYS Dies., 1850a, 287, 304–305 (type *clavata*); 1858e, 311, 315–316.—Brand., 1888a, 12, 15, 52; 1890a, 578.—Braun, 1894, 166; 1895b, 132.—Goldb., 1855a, 16.—Mont., 1888a, 84 (*Tylodelphis*), 91.—Olss., 1893, 8.—Pag., 1857, 46.—Villot, 1898, 542 (*Tylodelphis*).

1888: *Tylodelphis* Mont., 1888a, 84, for *Tylodelphys*.

clavata (Nord., 1832) Dies., 1850a, 305 (in *Acerina vulgaris*, *Perca fluviatilis*, *Lucioperca sandra*, *Esox lucius*; Rhedoni); 1858e, 316.—Braun, 1892a, 796.—Kroyer, 1838–40a, 579 (in *Acerina cernua*).—Olss., 1893, 8.

cranitaria Dies., 1858e, 316, based on Leydig, 1853, 382, pl. 14, fig. 6 (in *Cobitis fossilis*).—Braun, 1892a, 796.—Pavesi, 1881, 616.—To Diplost. by Cobbold, 1860.

petromyzi fluviatilis Linst., 1878a, 290, for *petromyzonis* fluv.

petromyzi fluviatilis Braun, 1892a, 796.

petromyzonis fluviatilis Dies., 1858e, 316 (in *Petromyzon fluviatilis*) (syns.: *Diplost. petromyzoni fluviatilis* Mueller, ? *Diplost. rachizæum* Mueller).

rachidis Hannover, 1864a, 3.

rhachixa (Henle, 1833) Braun, 1892a, 796 (see *rhachidis* Dies.).

rhachidis Dies., 1850a, 305 (= *Dubium ranarum* Rud., *Diplost. rhachizæum* Henle, renamed) (in *Rana esculenta*, *R. temporaria*); 1858e, 316 (in *Pelophylax esculentus*).—Braun, 1893a, 871.—[Caldani, 1794, 312–318, pl. 7, figs. 7–8.]—Hannover, 1864a, 3 (*rachidis*).—Pag., 1857, 38, pl. 4, fig. 7 (in *Rana esculenta*).—[Rud., 1810a, 268 (*Dubium ranarum*).]

TYPHLOCELUM Stoss., 1902, 9, 30–32 (tod. *flavum*); 1902, 33 (syn. *Monost. flavum*) (in *Anas boschas brasiliana*).—Cohn, 1904, 229, 231 (syn. of *Monost. flavum*), 232.

cucumerinum (Rud., 1809) Stoss., 1902, 32–33, pl. 8, fig. 28 (syns.: *Dist. cuc.* Rud., *Monost. cuc.*) (in *Avis riparia*).

flavum (Mehlis, 1831) Stoss., 1902, 30–32, pl. 9, figs. 31, 32 (syn. *Monost. fl.*) (in *Fuligula marila*; Rossitten).—Cohn, 1904, 230–232, fig. 1

sarcidiornicola (Mégnin, 1890) Stoss., 1902, 33–34 (syn. *Monost. sarc.*) (in *Sarci-diornis melanota*; Madagascar).

UDONELLA Johnston, 1835a, 497 (m. *caligorum*); 1865a, 30, 34.—Ben., 1858a, 1861a, 11, 12, 190, 207, 210, 297.—Brand., 1894a, 308.—Braun, 1890a, 451, 452, 465, 468, 477, 483, 484, 490, 498, 511, 515, 516, 517, 518, 522, 523, 531, 532; 1893a, 890.—Burm., 1856a, 251.—Carus, 1863, 477.—Chatin, 1880f, 591; 1881a, 311.—Cobbold, 1879b, 463.—Dies., 1850a, 290, 427 (syns.: *Hirudo*? Kroyer, *Amphibothrium* Frey & Leuck.); 1858e, 313, 362–363 (m. *caligorum*); 1859c, 437.—Gamb., 1896a, 73.—Goldb., 1855a, 20.—Hoyle, 1890, 539 (type *caligorum*).—Jackson, 1888, 644, 653.—Leuck., 1863a, 489; 1879, 139; 1886d, 107.—Mont., 1888a, 10, 52, 70 (*Udonetla*), 84, 86, 88, 98; 1892, Oct. 7, 186, 213 (gen. of *Udonellinae*); 1903, 336 (subf. *Udonellinae*); 1905, 65.—Par. & Perugia, 1890, 14.—Pratt, 1900, 646, 649 (on *Caligus* and *Anchorella*), 655, fig. 12.—Scott, T., 1901, 144.—Stoss., 1898, 8.—Tasch., 1878, 572; 1879, 236, 238; 1879, 56, 59, 68, 73.—Wagener, 1857, 25, 26.

1888: *Udonetla* Mont., 1888, 70.

caligarum Tasch., 1878, 564, 565, 572–573, for *caligorum*.

caligi (Kroyer—) Ben., 1858a, 1861a, 189.

caligorum Johnston, 1835a, 497, fig. 45 a–c (on *Caligus* on *Hippoglossus vulgaris*); 1865a, 34, 299–300, fig. 49.—Ben., 1858a, 1861a, 12, 13–18, pl. 1, figs. 1–15 (syns.: *Phylline caligi* Kroyer, *Amphibothrium kroyeri*) (in *Pleuronectus hippoglossus*, *Gadus morrhua*, *Trigla gurnardus*), 260.—Braun, 1890a, 418 (*caligarum*), 468, 485, 500, 512, 532, 548, 550, 551 (in *Caligus* sp.; North Sea; Atlantic Ocean).—Cobbold, 1879b, 484.—Dies., 1850a, 427 (syns.: *Hirudo* Kroyer, *Amphibothrium kroyeri* Frey & Leuck.); 1858e, 363; 1859c, 437 (in *Caligos hippoglossi vulgaris* et *gadi morrhuae*; Belgium).—Gamb., 1896a, 55, fig. 22B.—Grube, 1851, 116, 150.—Hoyle, 1890, 539 (on *Caligus* which is on *Hippoglossus vulgaris*).—Jackson, 1888, 646, 650 (on *Caligus*).—Moul., 1856a, 11.—Pag., 1857, 11.—Pratt, 1900, 655, fig. 12, 657.—Quatrefages, 1854, 23.—Scott, 1901, 144 (in *Caligus curtus*); 1905, 118; 1901, pl. 8.—Staff., 1904, May 3, 482 (on *Caligus* on *Gadus callarias*; Canada).—Tasch., 1878, 564, 565, 572–573 (*caligarum*).

hirundinis (Ben. & Hesse, 1863) Tasch., 1878, 573 (syn. *Echinella hirundinis*).

lupi Ben. & Hesse, 1863, 92, pl. 8, figs. 11–14 (in *Labrax lupus*).—Braun, 1890a, 408, 417, 427, 482, 532, 548, 550, 551 (in *L. lup.*; Atlantic Ocean).—Mont., 1890, 420.—Stoss., 1898, 8.—Tasch., 1878, 573.

merlucii Ben. & Hesse, 1863, 93; 1864, 93 (in *Merlucius vulgaris*).—Braun, 1890a, 417, 532, 548, 550, 551 (in *M. vulg.*; Atlantic Ocean).—Tasch., 1878, 573.

molva (Ben. & Hesse, 1863) Tasch., 1878, 573.

pollachii Ben. & Hesse, 1863, 90–91, pl. 8, figs. 1–8; 1864, 90–91, pl. 8, figs. 1–8 (in *Merlangus pollachius*).—Braun, 1890a, 408, 410, 417, 446, 510, 532, 548, 550, 551 (in *M. poll.*; Atlantic Ocean).—Gamb., 1896a, 58, fig. 25B.—Mont., 1888a, 7, 10, 34.—Tasch., 1878, 573.

sciæna Ben. & Hesse, 1863; 1864, 93, pl. 8, figs. 15–16 (in *Sciæna aquila*).—Braun, 1890a, 465, 532, 548, 549, 552 (in *S. aq.*; Atlantic Ocean).—Tasch., 1878, 573.

trigla Ben. & Hesse, 1863; 1864, 92, pl. 8, figs. 9–10 (in *trigles*).—Braun, 1890a, 417, 446, 532, 548, 550, 552 (in *Trigla* sp.; Atlantic Ocean).—Tasch., 1878, 573.

UDONELLIDÆ Tasch., 1879, 235 (*Udonellides*), 236; 1879, 68.—Braun, 1890a, 516, 517, 523, 526, 531; 1896b, 7.—Cerf., 1894, 946, 947, 948; 1898b, 361, 362.—Haswell, 1893e, 125.—Hoyle, 1890, 539 (*Udonella*).—Jackson, 1888, 653 (*Udonella*).—Mont., 1888a, 7, 10, 13, 18, 34, 36, 66, 67, 86 (*Udonellides*), 88, 98, 108, 110; 1891, 108; 1903, 336 (subf. *Udonellinae* (g. *Udonella*, *Echinella*, *Pteronella*)).—Scott, 1901, 141.

UDONELLIDES Tasch., 1879, 235 (see *Udonellidæ*).—Mont., 1888a, 86.

UDONELLINÆ Mont., 1892, Oct. 7, 213 (subf. of *Tristomidæ*); 1903, 336 (f. *Udonellidæ*).—Braun, 1893a, 890.—Pratt, 1900, 646 (includes: *Udonella*, *Echinella*, *Pteronella*), 649.—Scott, T., 1900, 141, 144.

UDONETLA Mont., 1888a, 70, for *Udonella*.

UNICOLA Rafinesque, 1815, 151, genus of *Fasciolaria*, nomen nudum; to contain species of *Fasciola*, but these are not mentioned. The name has therefore no status at present.

UROCENTRUM Nitzsch, 1827, 68 (m. *Cerc. turbo*).

UROGONIMINÆ Looss, 1899b, 655.—Pratt, 1902, 889, 906 (includes *Urotygma*, *Urogonimus*, *Urotocus*, *Urotrema*).

UROGONIMUS Mont., 1888a, 15, 92, 104 (tod. macrostomus); 1892, Oct. 7, 214 (gen. of Distominæ; 1893, 82, 154, 155, 157, 162, 164, 165; 1896, 167.—Braun, 1892a, 696, 699, 715, 727, 736; 1893a, 885, 886, 890, 893, 909, 911; 1895b, 138; 1900h, 3; 1900, 390; 1900, 234, 1901, 942, 943; 1902b, 136, 140.—Darr, 1902, 655.—Looss, 1894a, 173, 174; 1896b, 139; 1899b, 536, 538, 542, 551, 648, 653–654, 655, 665, 749, 750.—Luehe, 1899, 532; 1900, 555.—Moniez, 1896a, 90.—Nickerson, 1902, 606.—Ofenheim, 1900, 183.—Poche, 1907, 125.—Pratt, 1902a, 889, 906.—Stiles, 1901, 176, 194.—Stiles & Hass., 1898a, 95, 96 (syn. Leucochloridium), type Fasc. macrostoma.—Stoss., 1892, 4, 5; 1898, 23.—See also Leucochloridium 1835.

cercatum, see *cercatus*.

cercatus (Mont., 1893) Mont., 1893, 40, 42, 43, 83, 95, 102, 157 (*cercatum* and *cercatus*, 162–166, pl. 5, figs. 64–65; 1896, 167.—Looss, 1894a, 174 (*cercatum*); 1896b, 139, 140; 1899b, 654, 750.—Mueh., 1898, 16 (footnote); 1898, 99.

insignis Looss, 1899b, 596, 654, 748–750, figs. 49, 71 (in *Fulica atra*; Marg, Egypt).

macrostomum (Rud., 1803) Mont., 1893, 27, 67, 68, 76, 83, 95, 102, 107, 157.

macrostomus (Rud., 1803) Mont., 1892, Oct. 7, 187 (*macrostomum*); 1893, 27, 67, 68, 76, 83, 95, 102, 106, 107, 157, 162, 164 (*macrostomum* and *macrostomus*); 1896, 167.—Braun, 1901, 562, 564, 565, 567, 568; 1902b, 40 (in *Fringilla cœlebs*), 42 (in *Fringilla linaria*, *Parus palustris*, of Vienna Col., Nos. 361 and 466), 124, 125 (*macrostomum*), 136, 139 (syn.: *Dist. elegans* pars, *D. caudale* of Mueller in *Coracias garrula*, *D. holostomum* Rud., 1819, *Cladocellium* hol. Stoss., 1892) (in *Rallus aquaticus*, *Gallinula chloropus*, *G. porzana*).—Jacoby, 1900, 20.—Kowal., 1902d, 28 (10); 1904, 25 (10) (in *Turtur aurita*; Dublany).—Looss, 1896b, 139 (to *Dist.*); 1899b, 654, 750, 761.—Mueh., 1898, 16, 17, footnote; 1898, 22, 99, 101.—Stoss., 1896, 127, fig. 1; 1898, 23–24 (in *Numenius tenuirostris*; Monfalcone).—Reported also for *Passer domesticus*.

rossittensis Mueh., 1898, 16–17 (in *Turdus pilaris*; East Prussia; 1898b, 4, 22, 100–101, fig. 15 (at Rossitten).—Jacoby, 1900, 20.—Looss, 1899b, 654, 750, type of *Urotocus*.

URORYGMA Braun, 1901g, 942 (m. *nanodes*); 1902b, 138.—Pratt, 1902, 889, 904 (key to).

nanodes Braun, 1901g, 942–943 (in *Falco nitidus*; Brazil; 1902b, 138–140, figs. 81, 82.

UROTOCUS Looss, 1899b, 654–656 (tod. m. *rossittensis*); 1902m, 839.—Braun, 1900, 234; 1900, 390; 1902b, 140.—Luehe, 1901, 488.—Ofenheim, 1900, 183.—Pratt, 1902, 889, 907.

rossittensis (Mueh., 1898) Looss, 1899b, 655.

UROTREMA Braun, 1900, 390–391 (m. *scabridum*); 1902b, 140.—Looss, 1902m, 839.—Luehe, 1901, 488.—Pratt, 1902, 889, 901.

scabridum Braun, 1900, 390–391 (in *Fledermaus*); 1900b, 234–236, pl. 10, figs. 5, 10 (*Noctilio macropus*, *Molossus*, *Phyllostoma*; Brazil).

VALLISIA Par. & Per., 1890, 21 (m. *striata*); 1890, 18 (*striata*), *Octocotyliæ*.—Braun, 1890a, 407, 451, 453, 469, 481, 484, 519, 523, 534, 536, 546; 1893a, 890.—Ceri., 1895h, 920; 1896, 515.—Gamb., 1896a, 73 (*Vallisnia*).—Mont., 1892, Oct. 7, 213 (subg. in *Octocotylinæ*); 1903, 336 (subf. *Octobohtrinae*).—Pratt, 1900, 646, 651 (key), 656, fig. 32.—Stoss., 1898, 13.

striata Par. & Per., 1890, 21 (in *Lichia amia*; Trieste; 1890, 7; 1891, Jan. 19, 17–19.—Braun, 1890a, 534, 536, 548, 551 (in *Lichia amia*; Mittelmeer, Trieste).—Par., 1894, 594, 671.—Pratt, 1900, 656, 657, fig. 32.—Sons., 1890, 138 (to *Octocotyle*).—Stoss., 1898, 13–14.

VALLISNIA Gamb., 1896a, 73, for *Vallisnia*.

VERTUNUS Otto, 1823, 294–300 (m. *theridicola*), syn. of *Phœnicurus*.

theridicola Otto, 1823, 294–300, pl. 41, figs. a–f (in *Theris fimbria*) (syn. of *Phœnicurus varius* Rud.).—Braun, 1889a, 326.—Krohn, 1842a, 418–423.

VIRGULINA Bory St.-Vincent, 1823b, 356, genus of *Cercariæes*.

WEDLIA Cobbold, 1860a, 37–38 (*bipartita* Wedl, from *Thynnus vulgaris*, was clearly intended as type).—Braun, 1893a, 894 (*fabia* apparently taken as type by elimination).—Mont., 1888a, 9, 93; 1892, 714.—Tasch., 1879, 607.

1878: *Didymozoon* Tasch., 1878, 716.

1884: *Weidlia* Scudder, 1884, 335, misprint.

WEDLIA—Continued.

1902: *Didymostoma Ariola*, 1902, 103 (bipartitum).

bipartita (Wedl, 1855) Cobbold, 1860a, 38 (in *Thynnus vulgaris*).—Mont., 1893, 150.—Type of *Didymostoma* 1902.

faba (Bremser, 1831) Cobbold, 1860a, 38 (syns.: *Monost. faba* Bremser, Duj., Crep., Dies.; *M. bijugum* Miescher, Sieb.; *Globularia Orlando*) (in *Fringilla canaria*, *F. domestica*, *F. spinus*, *Parus major*, *Sylvia sibilatrix*, *S. trochilus*, *Motacilla boarula*).

WEIDLIA Scudder, 1884, 335, misprint for Wedlia.

XENODISTOMUM Staff., 1904, May 3, 483 (*ξένος*=stranger) (m. *melanocystis*).

melanocystis Staff., 1904, May 3, 483 (t. h. *Lophius piscatorius*; Canada) (*μέλας*, black; *κύστις*, bladder).—Odhn., 1905, 310.

ZEUGORCHIS Staff., 1905, Apr. 11, 691–692 (*ζεύγος*, pair; *ὄρχις*, testicle) (m. *aquatus*).

xquatus Staff., 1905, Apr. 11, 691–692 (= *Dist. sp.* Staff., 1902, 482) (in *Eutenia sirtalis*; Canada).

ZEUGORCHIS Nicoll, 1906, 514 (m. *acanthus*); 1907, 128, renamed *Parorchis*.

acanthus Nicoll, 1906, 514, 519–522, pl. 12, figs. 4–5, pl. 13, figs. 6–7 (in *Larus argentatus*).

(XIPHIDIOCERCARIA) Dies., 1855a, 388–390 (subg. of *Cercaria*); 1858d, 253, renamed *C. (Acanthocephala)*.

1858: *C. (Acanthocephala)* Dies., 1858d, 253–255.

armata (Sieb., 1837) Dies., 1855a, 388; 1858d, 251, to *C. (Acanthocephala)*.—See *endoloba*, type of *Opisthioglyphe* 1899.

gibba (Fil., 1854) Dies., 1855a, 389; 1858d, 257, to *C. (Acanthocephala)*.

macrocerca (Fil., 1855) Dies., 1855a, 389; 1858d, 255, to *C. (Acanthocephala)*.—See *cygnoides*, type of *Gorgodera*.

microcotyla (Fil., 1854) Dies., 1855a, 390; 1858d, 253, to *C. (Acanthocephala)*.—See *tetracystis*, type of *Cystagora*.

vesiculifera Dies., 1855a, 389; 1858d, 254, to *C. (Acanthocephala)*.

vesiculosa (Fil., 1854) Dies., 1855a, 389 (syn. of *Cerc. vesiculifera*).

ZOOGONINÆ Odhn., 1902, 63–64.—Goldschmidt, 1902e, 870.—Pratt, 1902, 889, 906 (key) (*Zoëgonus*, *Zoëgonoides*).

ZOOGONOIDES Odhn., 1902, 61, 64 (tod. *viviparus*).—Goldschmidt, 1902e, 870.—Pratt, 1902, 889, 906 (key).

viviparus (Olss., 1868) Odhn., 1902, 62–63, 64, fig. 2.—Goldschmidt, 1902e, 870.—Nicoll, 1907, 72, 83–84, pl. 2, fig. 8, pl. 3, fig. 9 (in *Pleuronectes limanda*, *P. platessa*, *Rhombus maximus*).

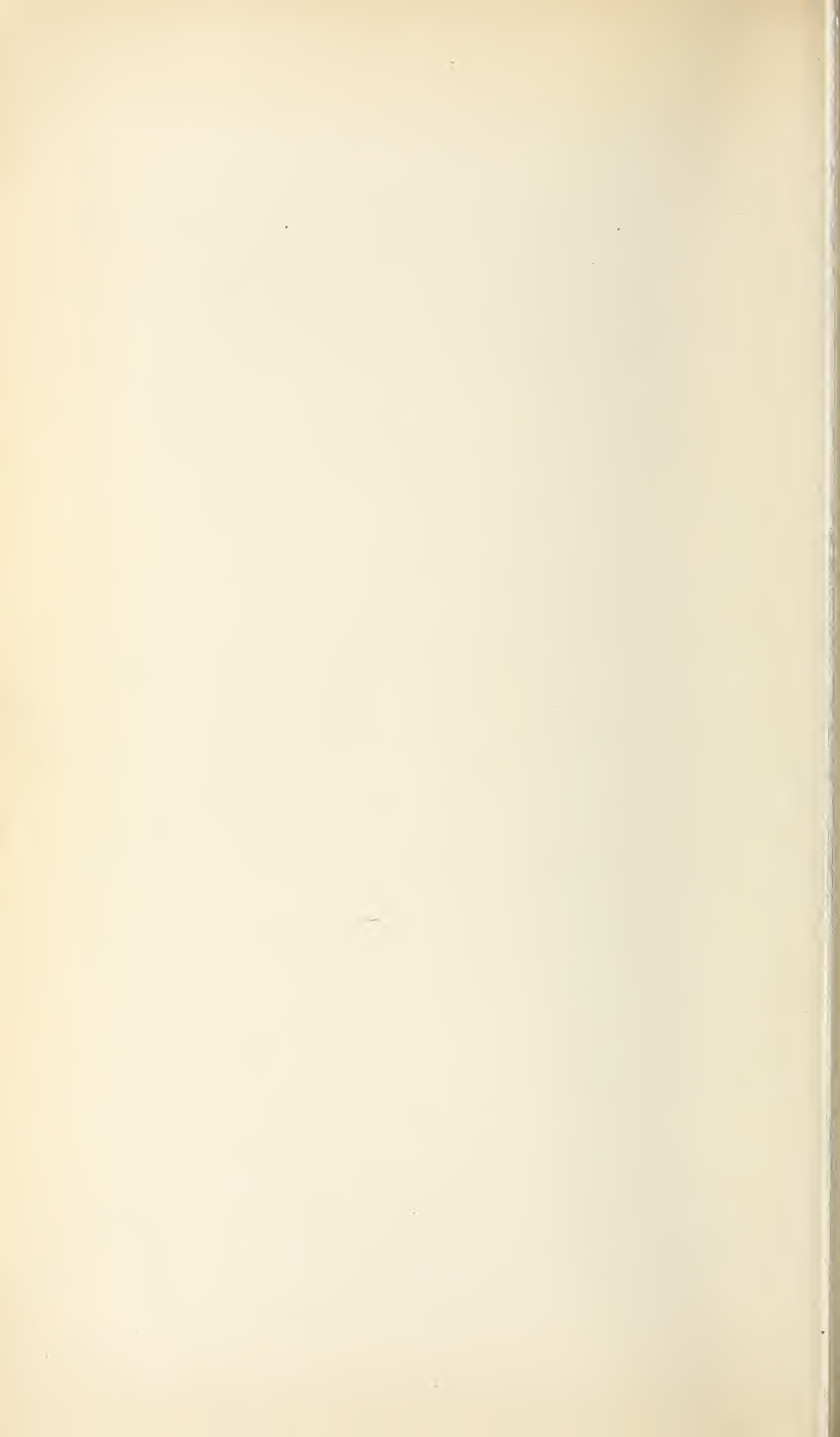
ZOOGONUS Looss, 1901d, 439 (tod. *mirus* indicated by “n. g. n. sp.”).—Luehe, 1901, 176.—Odhn., 1902, 58–63, 64.—Pratt, 1902, 889, 906 (key).

mirus Looss, 1901, 439–442, fig. 6 (in *Labrus merula*; Trieste).—Goldschmidt, 1902e, 870–876, figs. 1–6 (in *Labrus merula*); 1903a, 535–536; 1905, July, 56; 1905, 607–654, pls. 36–38, figs. 1–42.—Nicoll, 1907, 83.—Odhn., 1902, 58, 59, 60, 61, 64.—Røwer, 1906, 220, 221.

rubellus (Olss., 1868) Odhn., 1902, 59–61, 63, fig. 1.—Goldschmidt, 1902e, 870, 872, 873.

viviparus (Olss., 1868) Looss, 1901, 439, 440, 441, 442.—Type of *Zoogonoides* 1902.

ZOOSPERMA Bory St.-Vincent, 1823b, 356.



ADDENDA.

Since the manuscript of this bulletin left our hands, a number of additional references to trematodes have come into our possession. Only such references as involve new names and new combinations will be inserted in the addenda.

Particular attention is invited to an important change in the International Code relative to the collective groups, namely:

ART. 8.—Recommendation: Certain biological groups which have been proposed distinctly as collective groups, not as systematic units, may be treated for convenience as if they were genera, but they require no type species. Examples: *Agamodistomum*, *Amphistomulum*, *Agamofilaria*, *Agamomermis*, *Sparganum*.

In the present bulletin, types were designated for certain of these groups before the foregoing article was adopted. Such designation becomes null and void under this article.

ADDITIONAL SPECIFIC NAMES.

- acanthus* Nicoll, 1906. [See supra, p. 10.] Add: 1907: Parorchis.
- affinis* Looss, 1907, 158, t. h. *Anguilla chrysypa*, *Osmerus mordax*; U. S. A.—1907: *Brachyphallus*.
- albida* Braun, 1893. [See supra, p. 12.] Add: 1898: *Campula*.
- angulatum* Linst., 1907, 202, t. h. *Lucioperca sandra*; Wolga.—1907: *Phyllodist.*
- annuligerum* Nord., 1832. [See supra, p. 14.] Add: 1904: *Diplost.*
- appendiculata* Pelseneer, 1906, 167, t. h. *Natica alderi*; Boulogne-sur-Mer.—1906: *Cerc.*
- baecutus* Nicoll, 1907, 72, t. h. *Hippoglossus vulgaris*; Scotland.—1907: *Stephanochasmus*.
- bacillare* Mol., 1859. [See supra, p. 16.] Add: 1907: *Ophecona*, type.
- baculatum* Lint., 1907, 119, for *baculum* (*Gasterost.*).
- bathycotyle* Fischder., 1903h, 542, for *bathycotyle* (*Paramphist.*).
- bovium* Nakahama, (1883b).—1883: *Amphist.*
- branchialis* Willem, 1906, 599, t. h. *Raie bouclée*; Belgium.—1906: *Acanthocotyle*.
- brevicauda* Pelseneer, 1906, 167, t. h. *Littorina rudis*; Wimereux.—1906: *Cerc.*
- breviductus* Looss, 1907, 596, t. h. *Pelamys sarda*; Atlantic Ocean.—1907: *Dinurus*.
- burki* Rathelot, 1892a, 14, for *buskii* (*Dist.*).
- buski* Rail., 1898, 172, for *buskii* *Lankester*.—1898: *Campula*.
- caducum* Looss, 1907, 615, t. h. *Umbrina cirrhosa*.—1907: *Pristisomum*.
- calculus* Looss, 1907, 610, t. h. *Larus argentatus*, *L. ridibundus*; Trieste.—1907: *Pachytrema*.
- caligarum* Ben., 1858a, 1861a, 12, for *caligorum* (*Udonella*).
- cignoides* Desmonceaux, 1868a, 21, for *cygnoides* (*Dist.*).
- columba* Mazzanti, 1889. [See supra, p. 24.] Add: 1890: *Mesogonimus*.
- commutatum* Dies., 1850. [See supra, p. 24.] Add: 1898: *Clinost.*
- complexa* Stiles & Hass., 1894. [See supra, p. 25.] Add: 1898: *Campula*.
- conchicola* Nord., 1833b, 281, for *conchicola* (*Aspidogaster*).
- conchilega* Braun, 1883a, 41, for *conchicola* (*Aspidogaster*).
- conjuncta* Cobbold, 1860. [See supra, p. 25.] Add: 1898: *Campula*.
- conus* Crep., 1825. [See supra, p. 26.] Add: 1898: *Campula*.
- cornu* Dies., 1839. [See supra, p. 26.] Add: 1907: *Diplodiscus*.
- cornuta* Mueller, 1776a, 221.—1776: *Plan.*
- cotti* Zschokke, 1884, 6, t. h. *Cottus gobio*.—1884: *Sporocystis*.
- crenatum* Mol., 1859. [See supra, p. 27.] Add: 1907: *Lecithocladium*.
- crispata* Pelseneer, 1906, 171, t. h. *Natica alderi*; Boulogne.—1906: *Cerc.*
- cristatum* Rud., 1819. [See supra, p. 27.] Add: 1907: *Lecithocladium*.
- cuculus* Thoss, 1897; 1, t. h. *Larus ridibundus*; Kiel.—1897: *Holost.*
- cygnoides rana* Wagener, 1857, 19.—1857: *Dist.*
- cylindraceum* Daday, 1907, 560, for *cylindraceum* (*Dist.*).
- cylindricus* Dies., 1836. [See supra, p. 28.] Add: 1907: *Pseudocladorchis* type.

- dentalii* Pelseneer, 1906, 170, t. h. *Dentalium tarentinum*.—1906: Cerc.
- didactyla* Mrazek, 1907, 1, t. h. *Atyaephyra desmarestii*; Plavnicca.—1907: Scutariella.
- dipsilis* Nicoll, 1907, 247, t. h. *Oidemia fusca*, *O. nigra*; Great Britain.—1907: Gymnophallus.
- dorsale* Freund, 1907, 718, for chordale (Amphist.).
- egyptiaca* Pease, 1901b, 7, for ægyptiaca (Fasc.).
- emasculans* Pelseneer, 1906, 166, t. h. *Littorina rudis*; Wimereux.—1906: Cerc.
- endorffii* Par. & Perugia, 1895, 2, for hendorfii (Phylline).
- excellens* Nicoll, 1907, 247, t. h. *Larus argentatus*; Great Britain.—1907: Spelotrema.
- fenestratum* Lint., 1907, 111, t. h. *Lycodontis moringa*; Bermuda.—1907: Dist.
- feriatum* Nicoll, 1907, 247, t. h. *Ægialitis hiaticula*, *Hæmatopus ostralegus*, *Pelidna* (*Tringa*) *alpina*, *Totanus calidris*, *Vanellus vanellus*; Great Britain.—1907: Spelotrema.
- ferrum-equinum* Dies., 1836. [See supra, p. 35.] Add: 1907: Microorchis.
- filum* Looss, 1907, 606, t. h. *Talpa europæa*; Leipzig.—1907: Ityogonimus.
- furcata* Mueller, 1786a, 299, free form.—1786: Vorticella. 1816: Furcularia. [1825: Furcocerca serrata.]
- fusiforme* Luehe, 1901. [See supra, p. 37.] Add: 1907: Sterrhurus.
- galeatus* Looss, 1907, 165, t. h. *Mugil auratus*; Coast of Egypt.—1907: Leithaster.
- gazzettæ* Arch. f. Naturg., 1901, v. 2 (8), 188, for garzettæ (Echinost.).
- giardi* Pelseneer, 1906, 170 t. h. *Buccinum undatum*; Boulogne.—1906: Cerc.
- glaviger* Ssinitzin, 1906, 687, for claviger (Pleurogenes).
- gracilius* Pelseneer, 1906, 176, for grascilescens (Gasterost.).
- grandiporum* Rud., 1819. [See supra, p. 39.] Add: 1907: Sterrhurus.
- gratosum* Nicoll, 1907, 247, t. h. *Pelidna* (*Tringa*) *alpina*; Great Britain.—1907: Maritrema.
- gravidum* Looss, 1907, 603, t. h. *Anguilla vulgaris*; ?Triest.—1907: Lecithochirium.
- gulosum* Lint., 1901. [See supra, p. 39.] Add: 1907: Lecithocladium.
- gyrinus* Lint., 1907, 107, t. h. *Lactophrys tricornis*, *L. trigonus*; Bermuda.—1907: Dist.
- hæmatodium* Dewitz, 1892b, 106, for hæmatobium (Dist.).
- haswelli* Mont., (1898), 1899, 122, see blanchardi 1893.—1899: Actinodactynella (type).
- hepaticum hominis* Cobbold, 1884g, 976.—1884: Dist. See Fasc. hep.
- heterophyes* Sieb., 1853. [See supra, p. 41.] Add: 1898: Clinost. 1904: Paragonimus.
- hæmatobium* Rathelot, 1892a, 14, 15, for hæmatobium (Dist.).
- humile* Nicoll, 1907, 247, t. h. *Totanus calidris*; Great Britain.—1907: Maritrema.
- imocavus* Looss, 1907, 601, t. h. *Thynnus* sp. (?thunnina); Alexandria, Egypt.—1907: Sterrhurus.
- inermis* Goto, 1899a, 273, see læve var. inermis (Trist.).
- inversum* Looss, 1907, 615, t. h. *Chrysophrys aurata*; Triest.—1907: Placotrema.
- jacksoni* Cobbold, 1869a, 80, for jacksonii (Fasc.).
- jaksoni* Stazzi, 1900, 3, 4, 5, for jacksonii (Fasc.).
- jejunum* Nicoll, 1907, 248, t. h. *Totanus calidris*; Great Britain.—1907: Toco-trema.
- kordatum* see cordatum.
- laguncula* Looss, 1907, 69, t. h. [fish]; Triest.—1907: Aponurus, type.
- lamelliforme* Lint., 1907, 108, t. h. *Balistes carolinensis*, *Lactophrys tricornis*, *L. trigonus*; Bermuda.—1907: Dist.

- lapidus* Looss, 1907, 69, t. h. fish. [See p. —.]—1907: Ectenurus.
laurentina Borelli, 1897, 1.—1897: Plan.
lenori Mont., 1896, 167, for lenoiri (Cephalogonimus).
lepidum Nicoll, 1907, 247, t. h. *Larus argentatus*; Great Britain.—1907: *Mari-trema*.
lepidus Looss, 1907, 597, t. h. *Lichia amia*.—1907: Ectenurus, type.
leptosomum Ræwer, 1906, 185, 186, for *leptostomum* (Dist.).
levenseni Lint., 1907, 110, t. h. *Epinephelus maculosus*, *E. striatus*; Bermuda.—1907: Dist.
longisinus Looss, 1907, 596, t. h. *Coryphæna hippuris*; Red Sea, Aden.—1907: *Dinurus*.
lophocerca Fil., 1857. [See supra, p. 49.] Add: 1907: Monost.
lugubris Morgan, 1901, 179.—1901: Plan.
lunatus Dies., 1836. [See supra, p. 49.] Add: 1907: Chiorchis.
macrophallos Linst., 1875. [See supra, p. 50.] Add: 1907: *Levinseniella*.
macrostomus Daday, 1907, 506, t. h. *Salmo pacupa*, *S. sp.*; South America.—1907: *Pseudocladorchis*.
mamillaris Gærtner in Pallas, 1774, 20.—1774: *Distomus*.
marcnzelleri Daday, 1907, 473, t. h. *Salmo sp.*; South America.—1907: *Diplo-discus*.
margaritarum Dubois, 1901. [See supra, p. 51.] Add: 1907: *Gymnophallus*.
marmorata Bosc, 1802a, v. 1, 262, for *marmorosa*?.—1802: Plan.
mcconnelli McConnell, 1878a, 406, for *macconnelli* (Dist.).
megacotyle Dies., 1836. [See supra, p. 52.] Add: 1907: *Microrchis*, type.
megalocotyle Walter, 1893, 19, 24, for *megacotyle* (Amphist.).
mcclangi Lebour, 1907, 442, for *merlangi* (*Octobothrium*).
migocera Lebour, 1906, 7, for *myocerca* (Cerc.).
minor Ben., 1858, 98, see *armata minor* (Cerc.).
montenegrina Mrazek, 1904a, 1; Montenegro.—1904: Plan.
monticelli Mont., 1905, 74, for *monticellii* (*Acanthocotyle*).
muehlingi Nicoll, 1907, 257, 259, for *mühlingi* (Dist.).
musculus Looss, 1907, 600, t. h. *Anguilla vulgaris*, *Dentex vulgaris*; Trieste.—1907: *Sterrhurus*, type.
myocercoides Pelseneer, 1906, 162, t. h. *Syndosmya alba*; Boulogne-sur-Mer.—1906: Cerc.
nanus Stiles & Goldberger, 1908, 23, t. h. *Francolinus subtorquatus*; Africa.—1908: Agamodist.
nephrodorchis Daday, 1907, 501, t. h. *Salmo pacu*, *S. pacupa*; South America.—1907: *Pseudocladorchis*.
nigrotincta Pelseneer, 1906, 166, t. h. *Syndosmya alba*; Boulogne-sur-Mer.—1906: Cerc.
novæ zealandiæ Haswell, 1888, 50, for *novæ zelandiæ* (*Temnocephala*).
obtusicauda Pelseneer, 1906, 182, for *obtusicaudata* (Cerc.).
obtusicaudata Pelseneer, 1906, 167, t. h. *Natica alderi*; Boulogne.—1906: Cerc.
oocysta Lebour, 1907, 439, t. h. *Paludestrina stagnalis*; Northumberland Coast.—1907: Cerc.
opaca Ward, 1894. [See supra, p. 59.] Add: 1907: *Levinseniella*.
ophthalmobium Rathelot, 1892a, 14, for *ophthalmobium* (Dist.).
paguri Nord., 1833b, 379.—1833: Polyst.
pankreatikum Katsurada & Saito, —, Hyg. Centralbl., v. 3, Oct., 279, for *pancreaticum* (Dist.).
papillatus Daday, 1907, 520, t. h. *Cholossoma brachypoma*; Paraguay.—1907: Chiorchis.
paronæ Mont., 1907, 3, t. h. *Crenilabrus pavo*; Genoa.—1907: *Encotyllabe*.
parvivenalis Pelseneer, 1906, 165, t. h. *Natica alderi*; Boulogne.—1906: Cerc.
pedicellatum Luehe, 1900u, 487, for *pedicellatum* (Dist.).

- pellucida* Jägers. 1907, 134, t. h. *Anas boschas fera*, *Fuligula fuligula*; West Coast of Sweden.—1907: *Levinseniella*.
- petromyzi fluvialis* Dies., 1858e, 316, for *peteromyzi fluvialis* (*Diplost.*).
- philippincensis* Stiles & Goldberger, 1908, 23, t. h. *Bos* sp.; Manila, P. I.—1908: *Homalogaster*.
- pirum* Lebour, 1907, 439, t. h. *Paludestrina stagnalis*; Northumberland Coast.—1907: *Cerc*.
- polymastus* Schneidemuehl, 1896, 303, for *polymastos* (*Gastrodiskus*).
- prestis* Mola, 1907, 39, for *pristis* (*Dist.*).
- propinqua* Jägers., 1907, 135, t. h. *Charadrius hiaticula*, *Hæmatopus ostralegus*; West Coast of Sweden.—1907: *Levinseniella*.
- pumex* Looss, 1907, 615, t. h. *Caranx trachurus*.—1907: *Pristisomum*.
- [*pupila* Bory St.-Vincent, 1825b, 252.—1825: *Histrionella*.]
- pusillum* Harz, 1881c, 3, for *pusillum* (*Dist.*).
- putorii* Schrank,? or Gmelin, 1790. [See supra, p. 66.] Add: 1898: *Echinost.*
- quadrangulatum* Daday, 1907, 470, t. h. *Salmo pascu*; Cuyaba.—1907: *Dist.*
- raggazzii* Janicki, 1907, 719, for *ragazzii* (*Syncœlium*).
- rajazzii* Ariola, 1899, 135, for *ragazzii* (*Dist.*).
- ranerium* Nardo, 1833a, 523, for *raynerianum* (*Dist.*).
- rathousii* Mont., 1893, 33, for *rathousi* (*Dist.*).
- ropaloides* Olss., 1867a, 19, 48, for *ropaloides* (*Amphist.*).
- rugosa* Dies., 1850a, 408, t. h. *Antilope pyrga*; Port Natal.—1850: *Gyrocotyle*, type.
- rugosus* Looss, 1907, 591, t. h. *Clupea pilchardus*, *C. sardina*, *Rhombus maximus*; Trieste.—1907: *Hemiurus*.
- sanguicola* delle Chiaje, 1825a, 15.—1825: *Hexathyridium*.
- sciænæ* Fraip., 1880c, 442, for *sciænæ* (*Epibdella*).
- scleroporium* Rud. of Brand., 1891d, 19, for *Crep.*?—1891: *Amphist*.
- semifuscum* Looss, 1907, 607, t. h. *Circetus* [= *Circætus*?] *gallicus*; Genoa.—1907: *Platynosum*, type.
- seminis* Owen, 1835l, 394.—1835: *Cerc*.
- serrata* Bory St.-Vincent. 1825a, 84, t. h. "infusion de foin."—1825: *Furcocerca*.
- siluris glanidis* Hofer. 1904a, 169, for *siluri glanidis* (*Dactylogyrus*).
- simile* Jägers., 1900. [See supra, p. 72.] Add: 1906: *Dist.*
- simplicissima* Morgan, 1904, 385.—1904: *Plan.*
- sinensis* Cobbold, 1875. [See supra, p. 72.] Add: 1898: *Campula*.
- stellatus* Looss, 1907, 165, t. h. *Belone acus*, *Dentex vulgaris*, *Mæna vulgaris*; Trieste.—1907: *Lecithaster*.
- stossichii* Looss, 1907, 69, for *stossichii* Mont.—1907: *Aphanurus* (type).
- subtenue* Lint., 1907, 106, t. h. *Calamus calamus*, *Harpe rufa*, *Iridio bivittatus*, *Lachnolaemus maximus*; Bermuda.—1907: *Dist.*
- syndosmya* Pelseneer, 1906, 172, t. h. *Syndosmya alba*; Boulogne-sur-Mer.—1906: *Cerc*.
- tenuicollis* Rud., 1819. [See supra, p. 77.] Add: 1898: *Campula*.
- tomæ* Lint., 1907, 112, t. h. *Epinephelus striatus*; Bermuda.—1907: *Dist.*
- tornatum* Rud., 1819. [See supra, p. 78.] Add: 1907: *Dinurus* (type).
- triangula* Linst., 1878, 72, for *triangulare* (*Dist.*).
- trilobata* Bory St.-Vincent, 1825a, 84, t. h. "infusions d'écorce de chêne."—1825: *Furcocerca*.
- trimellaris* Bosc, 1802a, v. 1, 262.—1802: *Plan.*
- trulla* Lint., 1907, 109, t. h. *Ocyurus chrysurus*; Bermuda.—1907: *Dist.*
- ubiquita* Lebour, 1907, 439, t. h. *Littorina obtusata*, *L. rudis*, *Paludestrina stagnalis*; Northumberland Coast.—1907: *Cerc*.
- urna* Grube & Wagener, 1852, 543, t. h. *Chimæra monstrosa*.—1852: *Amphiptyches* (type).—1896: *Gyrocotyle*. [Now in the *Cestodaria*.]
- vallei* Mont., 1907, 3, t. h. *Chrysophrys aurata*; Trieste.—1907: *Encotyllabe*.

- vaullegeardi* Pelseneer, 1906, 175, t. h. *Trochus cinerarius*; Wimereux.—1906: Cerc.
- virgula* Looss, 1907, 111, t. h. *Cepola rubescens*, Engraulis encrasicholus; Triest.—1907: Aphanurus.
- volgensis* Linst., 1907, 201, t. h. *Lucioperca sandra*; Wolga.—1907: Ptychogonimus.
- watsoni* Conyngham, 1904. [See supra, p. 83.] Add: 1907: *Gastrodiscus*.
- westermanni* Rail., 1898, 173. for *westermanii* Kerbert, 1878. [See supra, p. 83.] Add: 1898: Clinost.

ADDITIONAL GENERIC AND SPECIFIC BIBLIOGRAPHY.

ACANTHOCOTYLE. [See above, p. 85.]

branchialis Willem, 1906, 599-607, figs. 1-10 (in Raie bouclée; Belgium).

AGAMODISTOMUM. [See above, p. 87.]

nanus Stiles & Goldberger, 1908, 30-33, figs. 45-64 (in *Francolinus subtorquatus*; Benguela, West Africa).

AMPHIPTYCHES Grube & Wagener, 1852, 543 (in. urna).

urna Grube & Wagener, 1852, 543-554 (in *Chimæra monstrosa*).

AMPHISTOMA. [See above, p. 89.]

bovium Nakahama, (1883b).—Teste Surg.-Gen. Cat.

dorsale Freund, 1907, 718, for chordale.

megalocotyle Walter, 1893, 19, 24, for megacotyle.

ropaloides Olss., 1867a, 19, 48, for ropaloides.

APHANURUS Looss, 1907, May 14, 591 (tod. *stossichi*), Hemiurinae. Hemiuridae; 1907, 69, 74, 78, 98, 107-109, 160.

stossichi (Mont., 1891) Looss, 1907, 591 (in Box boops, *Caranx trachurus*, *Clupea pilchardus* (t. h.), *C. sardina*, *Lichia amia*, *Mæna vulgaris*; Naples, Triest, t. l.); 1907, 69, 107, 109-111, 159, pl. 8, figs. 7, 8 (in *Clupea aurita*).

virgula Looss, 1907, May 14, 592 (in *Cepola rubescens*, *Engraulis encrasicolus*; Triest); 1907, 111, 159, pl. 9, figs. 15, 16.

APONURUS Looss, 1907, May 14, 607-608 (tod. *laguncula*), Lecithasterinae, Hemiuridae; 1907, 69, 74, 78, 99, 101, 111, 166-168.

laguncula Looss, 1907, May 14, 608 (in *Belone acus*, *Lichia amia*, *Engraulis encrasicolus*, *Mullus barbatus*, *Cadus euxinus*, *Merlucius esculentus*, *Trachinus draco*; Triest); 1907, 69, 110, 167, 169, pl. 13, figs. 53, 54, pl. 15, figs. 77, 78 (in *Mæna vulgaris*; Triest).

ASPIDOGASTER. [See above, p. 103.]

conchicala Nord., 1833b, 281, for *conchicola*.

BRACHILAIMUS Neumann, 1897f, 674, misprint for *Brachylaimus*. [See above, p. 116.]

BRACHYPHALLUS. [See above, p. 116.]

affinis Looss, 1907, 158-159, *B. crenatus* Rud. of Lander, 1904, renamed (in *Anguilla chrysypa*, *Osmerus mordax*; U. S. A.).

CALLYCOTYLE Mont., 1892a, 213, for *Calicotyle*. [See above, p. 119.]

CAMPULA. [See above, p. 120.]

albida (Braun, 1893) Rail., 1898, 172 (in cat and dog).

buski (Lankester, 1857) Rail., 1898, 172.

complexa (Stiles & Hass., 1894) Rail., 1898, 172 (in cat).

conjuncta (Cobbold, 1860) Rail., 1898, 172 (in *Canidés*).

conjuncta (of McConnell, 1875) Rail., 1898, 172 (in man).

conus (Crep., 1825) Rail., 1898, 172 (syn. *Amphist. truncatum*).—Reported for *Phoca grœnlandica*, *P. vitulina*.

sinensis (Cobbold, 1875) Rail., 1898, 172.

tenuicollis (Rud., 1819) Rail., 1898, 172 (syns. *D. felineum*, *D. tenuicollis*) (in cat and dog, *Phoca*).

(CEPHALOGONIMUS). [See above, p. 121.]

species Staff., 1902, 481.

CERCAREA Cobbold, 1873c, 14, for Cercaria. [See p. 121.]

CERCARIA. [See above, p. 121.]

- appendiculata* Pelseneer, 1906, 167, 174-175, 179, pl. 12, figs. 46-52 (in *Natica alderi*; Boulogne-sur-Mer).
- brevicauda* Pelseneer, 1906, 167, 179, 184, pl. 9, figs. 10, 11 (in *Littorina rudis*; Wimereux).
- crispata* Pelseneer, 1906, 171-172, 179, pl. 11, figs. 39-40 (in *Natica alderi*; Boulogne).
- dentalii* Pelseneer, 1906, 170, 171, 181, pl. 11, figs. 34, 35 (in *Dentalium tarentinum*).
- emasculans* Pelseneer, 1906, 166, 179, pl. 9, fig. 12 (in *Littorina rudis*; Wimereux).
- giardi* Pelseneer, 1906, 170-171, pl. 11, figs. 36-38 (in *Buccinum undatum*; Boulogne).
- migocera* Lebour, 1906, 7, for myocerca (in *Scrobicularia tenuis*).
- minor* Ben., 1858, 98, see *armata minor*.
- myocercoides* Pelseneer, 1906, 162-163, 179, pl. 8, figs. 1-2 (in *Syndosmya alba*; Boulogne-sur-Mer).
- nigrotincta* Pelseneer, 1906, 166, 179, pl. 9, fig. 9 (in *Syndosmya alba*; Boulogne-sur-Mer).
- obtusicauda* Pelseneer, 1906, 182, ?for *obtusicaudata*.
- obtusicaudata* Pelseneer, 1906, 167-168, 179, pl. 9, figs. 16-19, pl. 12, fig. 44 (in *Natica alderi*; Boulogne).
- oocysta* Lebour, 1907, 439, 440, 445-446, pl. 10, figs. E, F, G, (in *Paludestrina stagnalis*; Northumberland Coast).—Nicoll, 1907, 269.
- parvirenalis* Pelseneer, 1906, 165-166, 179, pl. 8, figs. 7, 8 (in *Natica alderi*; Boulogne).
- pirum* Lebour, 1907, 439, 440, 446-447, pl. 9, figs. F, G, (in *Paludestrina stagnalis*; Northumberland Coast).—Nicoll, 1907, 269.
- seminis* Owen, 1835l, 394.
- species Lebour, 1906, 7 (in *Donex vittatus*, *Tellina tenuis*; Alnmouth Land).
- species Lint., 1905d, 333, 401 (in *Monacanthus hispidus*; Beaufort, N. C.).
- syndosmya* Pelseneer, 1906, 172-173, 179, 185, pls. 10, 11, figs. 20, 21, 23 in *Syndosmya alba*; Boulogne-sur-Mer).—Giard, 1907, 419 (in *Syndosmya alba*).
- ubiquita* Lebour, 1907, 439, 440, 444-445, pl. 9, figs. D, E, (in *Littorina obtusata*, *L. rudis*, *Paludestrina stagnalis*; Northumberland Coast).
- vaullegeardi* Pelseneer, 1906, 175-176, 179, 180, pl. 11, figs. 41-43, 45 (in *Trochus cinerarius*; Wimereux).

CHELONELLA Ben. & Hesse, 1863, 80.—Mont., 1907, 6, syn. of *Encotyllabe*.

CHIORCHIS. [See above, p. 135.]

lunatus (Dies., 1836) Daday, 1907, 472.

papillatus Daday, 1907, 520-525, 534, 535, 536, 537, 538, 541, 542, 543, 545, 546, 547, 548, 550, 551, 552, 554, 555, 556, 557, 558, 561, 562, 564, 566, 567, 568, 570, 571, 572, 579, 581, 582, pl. 26, figs. 16, 17, 21, 24, 25, pl. 27, figs. 3, 4 (t. h. *Colossoma brachypoma*; Paraguay; also in *Doras murica*, *Salmo pacu*).

CLINOSTOMUM. [See above, p. 137.]

commutatum (Dies., 1850) Rail., 1898, 173 (in pigeonneaux, poulets).

heterophyes (Sieb., 1853) Rail., 1898, 173 (in chien, homme).

westermanni (Kerbert, 1871) Rail., 1898, 173 (in chat, chien, homme).

DACTYLOCOTYLE. [See above, p. 144.]

species Lint., 1905d, 333, 352, pl. 20, fig 151 (in *Brevoortia tyrannus*; Beaufort, N. C.).

DACTYLOGYRUS. [See above, p. 145.]

siluris glanidis Hofer, 1904a, 169, for *siluri glanidis*.

species Olss., 1883a, 53 (in *Coregonus lavaretus*).

- DIACROCÆLIUM Neumann, 1897f, 673, misprint for Dicrocœlium.
- DINURINÆ Looss, 1907, May 14, 592-593 (subf. of Hemiuridæ, contains: *Dmurus*, *Ectenurus*); 1907, 69, 99, 111-112, 125.
- DINURUS Looss, 1907, May 14, 593 (tod. *tornatus*) [nec *Dinoura* Ashmead]; *Dinurinae*, *Hemiuridæ*; 1907, 69, 99, 112-117, 123, 131
- barbatus* (Cohn, 1902) Looss, 1907, 594-596 (in *Coryphæna equisetis*, *C. hippurus*, *Pelamys sarda*); 1907, 118, 121, pl. 8, fig. 11, pl. 9, figs. 19, 20, 21.
- breviductus* Looss, 1907, May 14, 596 (t. h. *Pelamys sarda*; Atlantic Ocean; also in *Coryphæna hippurus*, at Beaufort, N. C.); 1907, 118-119, 120, 121, 122, pl. 8, fig. 12, pl. 10, figs. 22, 23.
- longisinus* Looss, 1907, May 14, 596 (in *Coryphæna hippurus*; Red Sea, near Aden); 1907, 86, 119-123, pl. 8, fig. 13, pl. 10, figs. 24, 25.
- tornatus* (Rud., 1819) Looss, 1907, 593-594 (in *Coryphæna equisetis*, *C. hippurus*, (t. h.) *Pelamys sarda*; Beaufort, N. C., Atlantic Ocean); 1907, 69, 112, 117, 120, 121, 122, pl. 8, figs. 9, 10; pl. 9, figs. 17, 18.
- DIPOLOSCUS. [See above, p. 155.]
- cornu* (Dies., 1839) Daday, 1907, 478-481, 527, 530, 533, 545, 546, 547, 549, 550, 551, 552, 554, 565, 568, 576, 581, pl. 24, figs. 11-15 (in *Cataphractus vaca* [= *Doras*] *vaca*; Rio Branco).
- marenzelleri* Daday, 1907, 473-478, 481, 527-530, 531, 532, 533, 546, 547, 548, 549, 550, 551, 552, 554, 564, 565, 568, 572, 576, 581, pl. 24, figs. 4-10 (in *Salmo* sp.; loc. South America, same as *Amphist. oxycephalum*).
- DIPOSTOMIASIS Hofer, 1904a, 138ff, refers to infection with *Diplostomum*.
- DIPOSTOMUM. [See above, p. 156.]
- annuligerum* (Nordm., 1832) Hofer, 1904a, 295, 296, fig. 189 (in *Perca fluviatilis*).
- petromyzi fluviatilis* Dies., 1858e, 316, for *peteromyzi* fluv.
- DISTOMA. [See above, p. 159.]
- betencourti* Mont., 1892b, 127, pl. 8, fig. 12.
- burki* Rathelot, 1892a, 14 for *buskii*.
- cignoides* Desmonceaux, 1868a, 21, for *cygnoides*.
- cylindraceum* Daday, 1907, 560, for *cylindræum*.
- fenestratum* Lint., 1907, 111-112, pl. 12, figs. 86-91 (in *Lycodontis moringa*; Bermuda); includes *Dist. sp.* Lint., 1904, 373, figs. 213-214.
- folium* Olfers, 1816. [See supra, p. 190.]—Zschokke, 1884, 11, 50-52, pl. 2, fig. 11 (in *Cottus gobio*, *Salmo umbla*, *Thymallus vulgaris*, *Trutta variabilis*); 1896, 773, 774, 776, 780, 783, 820 (in *Trutta fario*, *Cottus gobio*).
- gyrinus* Lint., 1907, 107-108, pl. 10, figs. 72-74 (in *Lactophrys tricornis*, *L. trigonus*; Bermuda).
- hæmatodium* Dewitz, 1892b, 106, for *hæmatobium*.
- hæmatobium* Rathelot, 1892a, 14, 15, for *hæmatobium*.
- lamelliforme* Lint., 1907, 108-109 (in *Balistes carolinensis*, *Lactophrys tricornis*, *L. trigonus*; Bermuda).
- levenseni* Lint., 1907, 110, pl. 12, figs. 80-83 (in *Epinephelus maculosus*, *E. striatus*; Bermuda).
- muehlingi* Nicoll, 1907, 257, 259, for *mühlingi*.
- noverca* (Braun, 1902) Verdun, 1907, 274.
- ophthalmobium* Rathelot, 1892a, 14, for *ophthalmobium*.
- pankreatikum* Katsurada & Saito, Hyg. Centralbl., v. 3, Oct., 279, for *pancreaticum*.
- preistis* Mola, 1907, 39, for *pristis*.
- quadrangulatum* Daday, 1907, 470-472, pl. 24, figs. 1-3 (in *Salmo pacu* = *Mycetes bidens*; Cuyaba).
- rajazzii* Ariola, 1899, 135 to (*Polyorchis*), for *ragazzii*.
- ranerium* Nardo, 1833a, 523, for *raynerianum*.
- similis* (Jägers., 1900) Lebour, 1906, 6.

DISTOMA—Continued.

- species Hausmann, 1899a, 448, 450 (in *Gallus dom.*).
- species Hausmann, 1899a, 449 (in *Corvus frugilegus*).
- species Schröder, Hofer, 1904a, 285 (in *Esox lucius*).
- species Lebour, 1905, 1-3, figs. A, C (in *Cardium edule*).
- species Lebour, 1907, 102-104, pl. 7 (in *Cardium edule*; England).
- species Lebour, 1907, 105-106, pl. 8, figs. C-D (in *Patella vulgata*).
- species Lebour, 1907, 104-105, pl. 8, figs. A, B (in *Purpura lapillus*; England).
- species Lint., 1905d, 335, 389, pl. 23, figs. 168, 169, 170 (in *Bairdiella chrysura*; Beaufort, N. C.).
- species Lint., 1905d, 335, 403, pl. 29, fig. 208 (in *Chilomycterus schœpfi*; Beaufort, N. C.).
- species Lint., 1905d, 335, 374 (in *Coryphæna equisetis*; Beaufort, N. C.).
- species Lint., 1905d, 335, 373, pl. 30, figs. 213, 214 (in *Coryphæna hippurus*; Beaufort, N. C.).
- species Lint., 1905d, 335, 385 (in *Cynoscion regalis*; Beaufort, N. C.).
- species Lint., 1905d, 335, 350, pl. 29, fig. 209 (in *Galeichthys milberti*; Beaufort, N. C.).
- species Lint., 1905d, 335, 382, pl. 24, fig. 179 (in *Lagodon rhomboides*; Beaufort, N. C.).
- species Lint., 1905d, 335, 393 (in *Leiostomus xanthurus*; Beaufort, N. C.).
- species Lint., 1905d, 335, 415 (in *Lophopsetta maculata*; Beaufort, N. C.).
- species Lint., 1905d, 335, 360 (in *Menidia menidia*; Beaufort, N. C.).
- species Lint., 1905d, 335, 397 (in *Micropogon undulatus*; Beaufort, N. C.).
- species Lint., 1905d, 335, 410, pl. 22, fig. 167, pl. 29, fig. 205, pl. 30, fig. 215 (in *Opsanus tau*; Beaufort, N. C.).
- species Lint., 1905d, 335, 413, 414 (in *Paralichthys albiguttus*; Beaufort, N. C.).
- species Lint., 1905d, 335, 404, pl. 21, fig. 157 (in *Prionotus scitulus*; Beaufort, N. C.).
- species Lint., 1905d, 335, 349, pl. 30, fig. 210 (in *Pteroplatea maclura*; Beaufort, N. C.).
- species Lint., 1905d, 335, 372, pl. 23, figs. 171, 172 (in *Rachycentron canadus*; Beaufort, N. C.).
- species Lint., 1905d, 335, 364, pl. 29, figs. 206, 207 (in *Seriola lalandi*; Beaufort, N. C.).
- species Lint., 1905d, 335, 359 (in *Siphostoma fuscum*; Beaufort, N. C.).
- species Lint., 1905d, 335, 402, pl. 22, fig. 165 (in *Spheroides maculatus*; Beaufort, N. C.).
- species Lint., 1905d, 335, 361, pl. 30, fig. 211 (in *Sphyræna borealis*; Beaufort, N. C.).
- species Lint., 1905d, 335, 353, pl. 22, fig. 166 (in *Stolephorus brownii*; Beaufort, N. C.).
- species Lint., 1905d, 335, 416, pl. 22, figs. 161, 162, 163, 164, pl. 30, fig. 212 (in *Symphurus plagiosa*; Beaufort, N. C.).
- species Lint., 1905d, 335, 366, pl. 29, fig. 204 (in *Trachinotus carolinus*; Beaufort, N. C.).
- species Lint., 1907, 114, pl. 7, fig. 57 (in *Angelichthys ciliaris*; Bermuda).
- species Lint., 1907, 117, pl. 12, fig. 84 (in *Balistes carolinensis*; Bermuda).
- species Lint. 1907, 116, pl. 10, fig. 70 (in *Bodianus fulvus punctatus*; Bermuda).
- species Lint., 1907, 115-116, pl. 10, fig. 69 (in *Chaetodon* sp.; Bermuda).
- species Lint., 1907, 117, pl. 13, fig. 85 (in *Paranthias furcifer*; Bermuda).
- species Lint., 1907, 118 (in *Salarichthys textilis*; Bermuda).
- species Lint., 1907, 114, pl. 8, figs. 59-60 to (*Lecithocladium*) (in *Seriola dumerili*; Bermuda).

DISTOMA—Continued.

- species Lint., 1907, 113, pl. 7, figs. 55-56 (in *Seriola fasciata*; Bermuda).
 species Lint., 1907, 116, pl. 10, fig. 70 (in *Sphryæna sphryæna*; Bermuda).
 species Lint., 1907, 118 (in *Teuthis cœruleus*; Bermuda).
 species Lint., 1907, 114-115, pl. 8, fig. 61 (in *Teuthis hepatus*; Bermuda).
 species Lint., 1907, 115, pl. 8, fig. 62 (in *Tylosurus acus*; Bermuda).
 species Olss., 1876a, 148 (in gall bladder of *Larus argentatus*).
subtenue Lint., 1907, 106, pl. 9, fig. 65 (in *Calamus calamus*, *Harpe rufa*,
Iridio bivittatus, *Lachnolaimus maximus*; Bermuda).
tomæ Lint., 1907, 112-113, pl. 14, figs. 94-96 (in *Epinephelus striatus*;
 Bermuda).
trulla Lint., 1907, 109, pl. 9, fig. 79 (in *Ocyurus chrysurus*; Bermuda).

DUCROCCELIUM Neumann, 1897f, 659, misprint for *Dicrocoelium*.

ECHINOSTOMUM. [See above, p. 246.]

- gazzetta* Arch. f. Naturg., 1901, v. 2 (8), 188, for *garzettæ*.
putorii (Schränk,? or Gmelin, 1790) Rail., 1898, 172 (syn. *Fasc. trigonocephala*) (in dog).
 species Hausmann, 1899a, 448, 449, 452 (in *Corvus frugilegus*).
 species Wolffhuegel, 1900, 35.

ECTENURUS Looss, 1907, May 14, 596-597 (tod. lepidus): *Dinurinae*, *Hemuridae*; 1907, 69, 99, 123-124, 131, 153, 167.

- lepidus* Looss, 1907, 597 (t. h. *Lichia amia*; also in *Atherina hepsetus*, *Caranx trachurus*, *Cepola rubescens*, *Lophius piscatorius*, *Mæna vulgaris*, *Scomber colias*, *Smaris alcedo*, *Trachipteron tænia*); 1907, 69, 123, 124, pl. 10, figs. 26, 27, pl. 13, fig. 46.

ENCOTYLLABE. [See above, p. 251.]

- parona* Mont., 1907, 3, 4, 6, 7, 9-10, pl. 10, figs. 13-15 (in *Crenilabrus pavo*; Genova), E. sp. of Braun, Par. & Per., St. Remy.
 species Lint., 1907, 103, pl. 7, figs. 49-53 (in *Calamus calamus*; Bermuda).
vallei Mont., 1907, 3, 4, 6, 7, 10-11, pl. 10, figs. 4-9, 16 (in *Chrysophrys aurata*; Triest).

FASCIOLA. [See above, p. 254.]

- egyptiaca* Pease, 1901b, 7, for *ægyptiaca*.
jacksoni Cobbold, 1869a, 80, for *jacksonii*.
jaksoni Stazzi, 1900, 3, 4, 5, for *jacksonii*.
magna (Bassi, 1875) Sons., 1889, 275.
 species Merrem, 1781, 169-172, pl. 1, figs. 3-7 (in mouse) "Sack-Egels."—Stiles & Stev., 1905a, 10 syn. of *Tænia teniæformis*.—Stiles, 1906a, 43, syn. of *Cysticercus fasciolaris*.

GASTEROSTOMUM. [See above, p. 270.]

- baculatum* Lint., 1907, 119, ?for *baculum*.
gracilius Pelseneer, 1906, 176, for *gracilescens*.
 species Braun, 1893a, 866 (in *Belone vulgaris*, *Cardium edule*, *C. rusticum*, *Ostrea edulis*, Rothen, Haie).
 species Lint., 1907, 119 (in *Mycteroperca apua*; Bermuda).
 species Lint., 1905d, 335, 379 (in *Orthopristis chrysopterus*; Beaufort, N. C.).
 species Lint., 1905d, 335, 364 (in *Seriola lalandi*; Beaufort, N. C.).
 species Olss., 1869b, 498.
 species Tennent, 1906, 640 (in *Scomberomorus maculatus*).
 species Tennent, 1906, 640, 679, 682 (in *Tylosurus marinus*).
 species Ziegler, 1883, 539 (in *Cyclopterus lumpus*).

GASTRODISCUS. [See above, p. 273.]

- watsoni* (Conyngham, 1904) Verdun, 1907, 285, fig. 110.

GASTROSTOMUM Otto, 1896a, 122, for *Gasterostomum*.

GYMNOPHALLUS. [See above, p. 276.]

dipsilis Nicoll, 1907, 247, 263-265 (in *Oidemia fusca*, *O. nigra*; Great Britain).

margaritarium (Dubois, 1901) Dubois, 1907, 502-504 (in *Mytilus edulis*, *M. gallo-provincialis*).—Giard, 1907, 419.

GYRODACTYLIASIS Hofer, 1904a, 134ff, name of infection.

HEMIURUS. [See above, p. 282.]

rugosus Looss, 1907, May 14, 591 (in *Clupea pilchardus*, *C. sardina*, *Rhombus maximus*; Trieste); 1907, 105-106, 159, pl. 7, figs. 4, 5 (syn. *H. stossichi* Luehe, not *Apoblema* st. Mønt., 1891).

HEXATHYRIDIDIUM. [See above, p. 286.]

sanguicola delle Chiaje, 1825a, 15 (syn. of *Polyst. venarum*).

HOLOSTOMUM. [See above, p. 289.]

cuculus Thoss, 1897, 1-66, pls. 1-2 (in *Bursa* fab. of *Larus ridibundus*; Kiel).—Kopezynski, 1907, 642.

HOLOSTONUM Thoss, 1897, 12, for *Holostomum*.

HOMALOGASTER. [See above, p. 294.]

philippinensis Stiles & Goldberger, 1908, 25-30, figs. 29-44 (in *Bos* sp.; Manila, P. I., Phrapatoom, Siam).

ITYOGONIMUS. [See above, p. 294.]

filum Looss, 1907, 606-607, figs. 2a-b (in *Talpa europæa*; Leipzig).

LECITHASTER. [See above, p. 295.]

galeatus Looss, 1907, May 14, 607 (in *Mugil auratus*; Egyptian Coast); 1907, 165-166, pl. 15, figs. 73, 74.

stellatus Looss, 1907, May 14, 606-607 (in *Belone acus*, *Mæna vulgaris*; Trieste); 1907, 165, pl. 14, fig. 66, pl. 15, figs. 75, 76 (in *B. a.*, *Dentex vulg.*, *M. v.*).

LECITHOCHIRIUM. [See above, p. 295.]

gravidum Looss, 1907, May 14, 603 (t. h. *Anguilla vulgaris*; also in *Gobius capito*, *Platessa passer*, *Rhombus maximus*; Trieste); 1907, 142, 148-149, pl. 14, figs. 60, 61, 63 (in *A. v.*, *Conger conger*, *Corvina nigra*, *G. c.*, *Hippocampus guttularis*, *Labrax lupus*, *P. p.*, *R. m.*, *Syngnathus acus*; Trieste).

LECITHOCLADIUM. [See above, p. 296.]

crenatum (Mol., 1859) Looss, 1907, 509 (in *Centrolophus pompilius*), perhaps n. sp.; 1907, 134-135, 169 (in *C. p.*; Trieste).

cristatum (Rud., 1819) Looss, 1907, 508-509 (in *Dactylopterus volitans*; Naples; *Stromateus fiatola*; Rimini, Trieste, Naples); 1907, 133-134, 135, 169, pl. 11, figs. 30, 31, pl. 13, figs. 44, 45 (in *S. f.*; Trieste).

gulosum (Linn., 1901) Looss, 1907, 135 (in *Rhombus* (*Stromateus*, *triacanthus*; Woods Hole, U. S. A.)).

LEVINSENIELLA. [See above, p. 299.]

macrophallos (Linn., 1875) Jægers., 1907, 148.

opaca (Ward, 1894) Jægers., 1907, 148.

pellucida Jægers., 1907, 134, 136, 141-144, 147-148, 150, 151, figs. 6, 7 (in *Anas boschas fera*, *Fuligula fuligula*; West Coast of Sweden).

propinqua Jægers., 1907, 135-139, 140, 141, 142, 143, 144, 147-148, 150, figs. 1, 2, 3, 4, 5 (in *Charadrius hiaticula*, *Hematopus ostralegus*; West Coast of Sweden).

MARITREMA Nicoll, 1907, 246, 265-266 (tod. *gratosum*).

gratosum Nicoll, 1907, 247, 248, 265, 266-267, 268, 269 (in *Egialitis hiaticula*, *Hematopus ostralegus*, *Larus ridibundus*, (t. h.) *Pelidna* (*Tringa*) *alpina*; Great Britain).

humile Nicoll, 1907, 247, 266, 268-269 (in *Totanus calidris*; Great Britain).

lepidum Nicoll, 1907, 247, 266, 267-268 (in *Larus argentatus*; Great Britain).

MESOGONIMUS. [See above, p. 302.]

columbae (Mazzanti, 1889) Mazzanti, 1890, 139.

MICROCOTYLE. [See above, p. 304.]

species Lint., 1905d, 335, 385 (in *Cynoscion regalis*; Beaufort, N. C.).

species Lint., 1905d, 335, 370, pl. 20, figs. 147-150 (in *Pomatomus saltatrix*; Beaufort, N. C.).

species Lint., 1907, 103-104 (in *Calamus calamus*, *Diplodus sargus*; Bermuda).

MICRORCHIS Daday, 1907, 481-482, 495, 526, 527, 528, 529, 530, 531, 533, 534, 535, 536, 538, 539, 540, 542, 545, 550, 552, 566, 567, 579, 580, 581 (type by present designation, on page precedence, megacotyle).

ferrum-equinum (Dies., 1836) Daday, 1907, 484, 485, 487, 488-494, 528, 530, 532, 533, 535, 537, 538, 539, 546, 547, 549, 553, 554, 556, 559, 561, 565, 576, 578, 581, pl. 24, figs. 27-29; pl. 25, figs. 1-6 (syn. *Amphist. ferrum-equinum*) (in *Cataphractus corome*, *C. murica*).

megacotyle (Dies., 1836) Daday, 1907, 482-488, 494, 527, 530, 532, 537, 546, 547, 549, 554, 561, 563, 565, 576, 578, 581, pl. 24, figs. 16-26 (syn. *Amphist. megacotyle*) (in *Silurus palmato*; Mattogrosso).

MONOSTOMUM. [See above, p. 308.]

lophocerca (Fil., 1857) Lebour, 1907, 439, 440, 443-444 (in *Bythinia tentaculata*, *Paludetrina stagnalis*; England).

species Lint, 1907, 118-119, pl. 14, figs. 92-93 (in *Bathystoma striatum*, *Hæmulon flavolineatum*; Bermuda).

species Nicoll, 1907, 247 (in *Larus argentatus*).

species Nicoll, 1907, 247 (in *Oidemia fusca*).

NITYCHIA Nord, 1833b, 384, for Nitzschia.

NITYSCHIA Nord., 1833b, 376, for Nitzschia.

OCTOBOTHRIUM. [See above, p. 324.]

melangi Lebour, 1907, 442, for merlangi.

species Olss., 1876a, 148 (in *Thymallus vulgaris*).

OPHECONA Looss, 1907, May 14, 616 (tod. bacillare).—Poche, 1907, Aug. 20, 103.

bacillare (Mol., 1859) Looss, 1907, May 14, 616.

PACHYTREMA Looss, 1907, 610 (tod. calculus).

calculus Looss, 1907, 610-613, figs. 3-4, Opisthorchiiden (in *Larus argentatus*, *L. ridibundus*; Triest).

PARAGOMINUS Daniels & Stanton, 1907, 343, for Paragonimus.

PARAGONIMUS. [See above, p. 335.]

heterophyes (Sieb., 1853) Neveu-Lemaire, 1904a, 73, 88, 89.

PARAPHISTOMUM Daniels & Stanton, 1907, 342, for Paramphistomum.

PARORCHIS. [See above, p. 337.]

acanthus (Nicoll, 1906) Nicoll, 1907, 247 (in *Larus argentatus*, *L. canus*).

PHYLLINE. [See above, p. 338.]

endorffi Par. & Per., 1895, 2, for hendorffi.

PHYLLODISTOMUM. [See above, p. 339.]

angulatum Linst., 1907, [2] 202, 1 fig. (in *Lucioperca sandra*; Wolga).

PLACOTREMA Looss, 1907, May 14, 615 (tod. inversum).

inversum Looss, 1907, May 14, 615 (in *Chrysophrys aurata*; Triest).

PLATYNOSUM Looss, 1907, 607 (tod. semifuscum).

semifuscum Looss, 1907, 607-608, fig. 3 (in *Circetus* [=Circætus?] gallicus; Genoa).

PLERURUS Looss, 1907, May 14, 604-605 (tod. digitatus), Sterrhurinae, Hemiruridae; 1907, 69, 78, 100, 152-153, 154.

digitatus (Looss, 1899) Looss, 1907, 605 (in *Sphryæna vulgaris*; Red Sea, Sawakin); 1907, 69, 152, 153-154, pl. 15, figs. 68, 69.

POLYSTOMA. [See above, p. 350.]

paguri Nord., 1833b, 379, see Bull. Soc. Philom., 1811, no. 44, 271, t. 2.

POLYSTOMIDÆ Mont., 1888a, 89, for Polystomidae.

PRISTISOMUM Looss, 1907, May 14, 615 (tod. pumex).

caducum Looss, 1907, May 14, 615 (in *Umbrina cirrhosa*; loc. not given).—
Poche, 1907, Aug. 20, 103.

pumex Looss, 1907, May 14, 615 (in *Caranx trachurus*; loc. not given).

PSEUDOCYLADORCHIS Daday, 1907, 481 494–495, 526, 527, 528, 529, 530, 532, 533, 534, 536, 537, 541, 547, 549, 550, 552, 553, 554, 561, 565, 566, 567, 576, 580, 581 (type by present designation, on page precedence, cylindricus).

cylindricus (Dies., 1836) Daday, 1907, 495–501, 502, 503, 504, 506, 512, 530, 535, 538, 546, 554, 566, 579, pl. 25, figs. 7–16 (in *Cataphractus murica*, *Salmo pacupeba*, S. sp., *Silurus megacephalus*; Villa Maria, Brazil).

macrostomus Daday, 1907, 506–509, 530, 531, 535, 538, 546, 554, 566, pl. 26, figs. 8–12 (in *Salmo pacupa*, S. sp.; loc. South America, same as *Amphist. oxycephalum*).

nephrodorchis Daday, 1907, 501–506, 508, 509, 530, 535, 538, 546, 554, 566, pl. 25, figs. 17–22; pl. 26, figs. 1–7 (in *Salmo pacu*, S. *pacupa*, S. sp.; loc. South America, same as *Amphist. oxycephalum*).

PTYCHOGONIMUS. [See above, p. 357.]

volgensis Linst., 1907, 201 [1] (in *Lucioperca sandra*; Wolga).

SCHISTOSOMUM. [See above, p. 359.]

hamatobium japonicum (Katsurada, 1904) Verdun, 1907, 290, 311, 313 (syn. of *S. cattoi*).

SCUTARIELLA Mrazek, 1907, 1–6, 1 pl., figs. 1–6 (m. didactyla).

didactyla Mrazek, 1907, 1–6, pl. 1, figs. 1–6 (in *Atyaephyra desmarestii*; Moraca-Flusses, Scutarisee bei Plavnica).

SPOROCYSTIS. [See above, p. 362.]

cotti Zschokke, 1884, 6, 11, 56–58, pl. 2, fig. 13 (in *Cottus gobio*).

STERRURHINÆ Looss, 1907, 99, for *Sterrhurinæ*, see p. 364.

STROMYLOTREMA Poche, 1907, Aug. 20, 105, for *Stomylotrema*, see p. 365.

SYNCELIUM. [See above, p. 366.]

ragazzii Janicki, 1907, 719, for *ragazzii*.

TRISTOMA. [See above, p. 375.]

inermis Goto, 1899a, 273, see *leve* var. *inermis*.

UDONELLA. [See above, p. 381.]

caligarum Ben., 1858a, 1861a, 12, 13–18, pl. 1, figs. 1–15, for *caligorum*.

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The following *bulletins* [Bulls. Nos. 1-7, 1900 to 1902, Hyg. Lab., U. S. Mar.-Hosp. Serv., Wash.] have been issued:

No. 1.—Preliminary note on the viability of the *Bacillus pestis*. By M. J. Rosenau.

No. 2.—Formalin disinfection of baggage without apparatus. By M. J. Rosenau.

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M. J. ROSENAU, Director

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THE INFLUENCE OF ANTITOXIN UPON
POST-DIPHTHERITIC PARALYSIS

By

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and

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CONTENTS.

	Page
Introduction.....	7
Post-diphtheritic paralysis in man.....	11
The relation of post-diphtheritic paralysis to antitoxin.....	12
Post-diphtheritic paralysis in the guinea pig.....	14
Can antitoxin influence diphtheritic paralysis after the paralysis has appeared?.....	16
Can antitoxin influence diphtheritic paralysis when injected shortly before the paralysis develops?.....	20
How long after infection can antitoxin influence paralysis?.....	20
Can antitoxin, given before infection as a prophylactic, prevent post-diphtheritic paralysis?.....	30
Summary and conclusions.....	31

THE INFLUENCE OF ANTITOXIN UPON POST-DIPHTHERITIC PARALYSIS.^a

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INTRODUCTION.

Diphtheria, under various names, can be traced back to remote antiquity; but the specific contagious disease which we now call diphtheria was not differentiated until 1821, when Brétonneau^b clearly described its clinical features and gave to it its present name. However, a definite relation between faucial attacks and subsequent paralysis was demonstrated almost one hundred years before.

Chomel,^c dealing with the epidemic of Paris in 1743, Ghisi,^d with that at Cremona in 1749, and Samuel Bard^e with that of New York in 1789, described cases of paralysis following sore throat. It is a surprising fact that nearly a century elapsed before the remarkable observations of these three writers were confirmed by subsequent investigators.

Brétonneau,^f in 1855, recorded an instance of post-diphtheritic paralysis in the case of Horpin, a surgeon of the hospital at Tours.

^aManuscript submitted for publication June 14, 1907.

^bBrétonneau: (a) Communication to the French Academy, 1821. (b) Des inflammations spéciales des tissus muqueux, et en particulier, de la diphthérie, ou inflammation pelliculaire. Paris, Crevot, 1826, 540 p., illus. 8°.

^cThese historical data are taken largely from J. D. Rolleston's excellent "Clinical observations on diphtheritic paralysis," *The Practitioner*, London, vol. 73, 1904, pp. 597-623, 794-824.

^dGhisi: *Lettere mediche*. Cremona, 1749.

^eBard, Samuel: An inquiry into the nature, cause and cure of the angina suffocativa, etc. *Trans. Phil. Soc., Phila.*, 1789.

^fFifth memoir on diphtheria, 1855, *New Sydenham Society*, p. 182.

The first monograph on post-diphtheritic paralysis was by Maingault, of Paris, in 1854, which appeared as an inaugural thesis entitled "De la paralysie du voile du palais à la suite d'angine." Maingault's more important work, "Sur les paralysies diphthéritiques," appeared in 1860. Between 1854 and 1860 several isolated cases of diphtheritic palsies had been described by observers, especially by Trousseau, who by this time had collected 90 cases, 29 of which were in children, with a mortality of 12.

The first histological investigations as to the nature of diphtheritic paralysis were made by Charcot and Vulpian^a in the case of a woman who had died with palatal paralysis. They showed that the motor nerves alone were affected, and consisted of tubules entirely devoid of medullary substance. The neurilemma contained numerous granular cells, mostly elliptical in shape and in some cases nucleated. A few of the muscle fibers were fatty. The sensory nerves showed no signs of alteration.

In 1883 Klebs^b found very peculiar and striking bacteria constantly present in the pseudo-membranes in the throats of those dying of true epidemic diphtheria. The next year Löffler^c isolated these organisms in pure culture and produced more or less characteristic pseudo-membranes by inoculating the cultures upon the mucous membranes of susceptible animals, frequently causing characteristic lesions with death.

In 1888 Roux and Yersin^d published their notable "contributions to the study of diphtheria." They were the first to prove that paralysis is a common sequel in the lower animals after recovery from experimental diphtheria. They observed the palsies in pigeons and rabbits following pharyngeal and tracheal inoculation. They also observed the same sequel in rabbits recovering from intravenous inoculations. Roux and Yersin concluded that the existence of these palsies following the inoculation of the Klebs-Löffler bacillus completes the resemblance between the experimental and the natural disease and establishes the specific rôle of this bacillus.

The introduction of the antitoxin treatment in 1894, followed by an increase in the number of palsies observed, has led to the publication of several monographs and experimental work dealing with the subject.

^a Comp. rend. Soc. biol., 1862.

^b Klebs: Congrès de Wiesbaden, 1883. Arch. f. exper. Path., I and IX. Also, "Verhandlungen des Congresses für innere Med.," 1883.

^c Löffler: Untersuchungen über die Bedeutung der Mikroorganismen für die Entstehung der Diphtherie beim Menschen. Mitt. a. d. kais. Gesundheitsamte, Bd. 2, 1884.

^d Roux, E., and Yersin, A.: Contribution à l'étude de la diphthérie. Ann. de l'Inst. Pasteur, vol. 2, 1888, p. 629.

The school founded by Ehrlich ^a in 1897, based on his scholarly work upon the constituents of the diphtheria poisons, and methods of standardizing the antitoxic value of the curative serum, made much use of the post-diphtheritic paralyses produced experimentally in the guinea pig. Ehrlich believes that at least two primary poisons are produced by the growth and multiplication of the diphtheria bacillus in nutrient broth; the one, *toxin*, produces acute death within about four days; the other, *toxon*, is incapable of causing acute death, but is responsible for the late palsies. In accordance with Ehrlich's view, post-diphtheritic paralysis is a *toxon* poisoning.

Ehrlich ^b has recently (1906) given a forcible defense of his classical paper entitled "The constituents of diphtheria toxin." On account of its importance in connection with our work, a brief summary of Ehrlich's views bearing upon diphtheritic paralysis or toxon poisoning is given practically in his own words, as follows:

We are evidently dealing with a primary secretory product of the diphtheria bacilli, the "toxon." The toxon possesses the same haptophore group as the toxin, but a weaker affinity for the antitoxin. The main difference is in the toxophore group, for even when given in large doses the toxon does not produce death, but only paralyses, which develop after a long incubation of fourteen days or more.

The presence of an independent poison (toxon) was inferred by Ehrlich from the curves shown in the spectra, which are based upon the assumption that 1 immunity unit contains 200 combining units.

The independent existence of the toxons is further corroborated by the fact that the toxon zone varies enormously in different specimens of poison. In one it may amount to about one-fifth of the toxin portion; in another he has seen equal parts of toxin and toxin. Dreyer and Madsen in fact have recently described a poison which contained three times as much toxon as toxin. According to our present experiences, therefore, the amount of toxon calculated on the toxin can vary from 0 per cent to 300 per cent.

This still left undecided whether the toxon is a primary bacillary secretion or secondary modification of the toxin. A study of the development of one poison (poison V) finally gave Ehrlich a clue to this. (Poison V has been described in the Deut. med. Woch., 1898.)

This particular toxine remained constant, as far as the L+ dose was concerned, but the L⁰ dose increased considerably, from 0.125 to 0.21. Ehrlich explains this phenomenon by assuming that the toxin portion remained absolutely unchanged, as indicated by the constancy of the L+ dose. On the other hand, the toxon portion, which is expressed by the difference between the L+ and the L⁰ dose, disappeared. This eliminates the possibility of the transformation of toxin into toxon.

It is difficult to say, a priori, what becomes of the toxon which has disappeared. Ehrlich assumes that we are dealing with a formation of an analogue of toxoid, viz, a substance which he terms toxonoid. This he conceives to be a toxon in which the toxophore group has become modified.

^a Ehrlich, P.: Die Wertbemessung des Diphtherieheilserums und deren theoretische Grundlagen. Klin. Jahrb., Jena, v. 6 (2), 1897, pp. 299-326.

—: Ueber die Constitution des Diphtheriegiftes. Deut. med. Woch., Leipzig, v. 24 (38), 1898, pp. 597-600.

^b Ehrlich, Paul: Studies on immunity. XXXVII, The constituents of diphtheria toxin. New York, John Wiley & Sons, 1906, p. 481.

Another fundamental difference—one which in Ehrlich's opinion argues in favor of the individuality of toxin and toxon—consists in the different action of the two constituents. The action of diphtheria toxin, as is well known, is such that the animals die with lesions of hydrothorax, ascites, congestion of the suprarenals, necrosis of the skin. Somewhat smaller doses kill guinea pigs in from six to seven days, the animals showing ulceration and extensive necrosis. Still smaller doses— $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{6}$, $\frac{1}{8}$ L. D.—no longer produce death, but regularly cause necroses, which are surrounded by an extensive area of total loss of hair. Small fractions of the fatal dose always produce emaciation of the animals. In contrast to this, the toxon—i. e., a serum-poison mixture in which only the toxin fraction is completely neutralized—never kills animals acutely, even in high doses. The inflammatory properties may be entirely absent in small doses, while in large doses they are present to only a slight degree. The oedema disappears completely in the course of a few days, there are no necroses, and the loss of hair, if it occurs at all, is only partial. On the other hand, the paralyzes are very characteristic, and these appear at any time between the fourteenth and twentieth days, depending upon the dose, usually in the third week. Frequently the animals do not show even a trace of local reaction, and maintain their weight; then suddenly they are attacked with the paralyzes and may die from these within a few days. Ehrlich has never seen such a result in animals inoculated with a pure diphtheria poison. Now and then a guinea pig was observed which showed these paralytic phenomena. It was usually one that had received a considerable fraction of the L. D. Invariably it showed extensive necroses, was generally very sick from the beginning, and had suffered considerable loss of weight. In view of the slight amount of toxon which was found in these poisons, such animals were evidently supersensitive to the toxon.

Ehrlich believes that the diphtheria poison contains at least three different varieties of poison and that these possess different affinities and different actions. These poisons are:

1. Toxin, possessing the highest affinity, kills rabbits and guinea pigs acutely, but is more toxic for the former.
 2. Toxon, killing rabbits acutely and guinea pigs with symptoms of paralysis.
 3. Toxonoid, producing paralyzes in rabbits; nontoxic for guinea pigs.
- The fact that all three poisons act more strongly on rabbits than on guinea pigs is explained by the absolute higher susceptibility of the former.

Upon the constituents of diphtheria toxin Ehrlich sums up his views as follows:

1. The diphtheria bacillus produces several kinds of poison, especially toxins and toxons.
2. The affinity of diphtheria toxin to the antitoxin is very great.
3. The deviations from a straight line as they manifest themselves in the graphic representation of the neutralization of the poison can not be explained by the assumption of a single poison possessing a weak affinity. They are rather the expression of the fact that the poison bouillon contains admixtures of various kinds of substances of a toxoid character.
4. The varied affinity of the toxoids can not be explained by the assumption that a simple toxin when transformed into toxoid suffers a change in affinity either positively or negatively. Rather does this indicate that the toxic bouillon contains, preformed, various toxins of different affinities.
5. There is no change in the haptophore group in the formation of toxoid.
6. The absolute number of combining units contained in the immune unit or in the L^0 dose of poison is 200.

POST-DIPHTHERITIC PARALYSIS IN MAN.

Paralysis probably follows in one-fourth of all cases of diphtheria that recover. The palsies are frequently so slight in degree and extent that they may readily be overlooked. Of 50,851 cases observed from 1895 to 1902 in the hospitals of the Metropolitan Asylums Board 19.54 per cent developed post-diphtheritic paralysis.

Post-diphtheritic paralysis follows both mild and severe cases; even fatal paralysis may follow an ambulatory case.^a Both sexes are equally affected. While the palsies follow the attacks of diphtheria in all ages, clinicians differ radically as to the relative frequency of the sequel at different ages.

The paralysis may affect the heart, palate, ciliary muscle (loss of accommodation), ocular muscles (strabismus), the pharynx, lips, diaphragm, or any of the skeletal muscles. It is sometimes localized, sometimes general.

The paralysis may more properly be described as a palsy or paresis, as the loss of power is seldom complete. It usually appears about the second or third week, sometimes as late as the eighth week. According to Rolleston, early paralysis indicates a profound intoxication of the nervous system and is a bad prognosis, early involvement of the palate being often associated with cardiac paralysis. This corresponds precisely with our observations upon the guinea pig. Paralysis appearing early in the guinea pig—between the thirteenth and eighteenth days following infection—is almost invariably severe and fatal; paralysis appearing later is commonly benign.

The tendency of diphtheritic palsy is to recover. When death occurs it is usually within the first three weeks, and is commonly due to cardiac paralysis. The figures indicate that from 2 to 4 per cent of the total number of cases of diphtheria die as a result of post-diphtheritic paralysis.

A precocious form of palatal palsy occurring about the fifth day of the disease or earlier has been described. Deguy^b believes these early palsies of the palate to result from the local effect of inflammatory reactions other than diphtheria. The presence of large numbers of diplococci, both in the leucocytes and in the thrombosed capillaries of the part, adds weight to the belief that the action is a diplococæmia superadded to a diphtheritic intoxication.

Rolleston believes that precocious palatal palsy in diphtheria is almost invariably associated with malignant forms, as is shown by

^a This corresponds to our work upon guinea pigs. Mixtures containing large doses of toxin partially saturated with antitoxin, when injected into guinea pigs, may cause little or no acute symptoms, but there may be enough uncombined "toxone" to cause severe or fatal post-diphtheritic paralysis.

^b Rev. neurology and psychia., vol. 4, Sept., 1906, p. 614.

the high mortality, the association of other grave symptoms during the acute stage, and subsequent more frequent development of paralysis in convalescence in the cases in which it occurs. It resembles the ordinary forms of diphtheritic palsy in its tendency to be frequently incomplete and by its higher incidence among young persons. It is, as a rule, of much longer duration than the palatal affection which occurs at a later date.

THE RELATION OF POST-DIPHTHERITIC PARALYSIS TO ANTI-TOXIN.

The statement is frequently made that paralysis is even more common in the cases treated with antitoxin than under former methods of treatment.

Welch^a, 1895, thinks this doubtful; if true, it may be attributed to the survival of a larger proportion of the cases.

McCollom^b, 1905, drawing from his rich experience with diphtheria at the Boston City Hospital, states that, although paralysis occurs after the severe cases, it has not been so frequent as it would have been in an equal number of cases treated without antitoxin.

Marfan^c, at the Hôpital des Enfants Malades de Paris, where over 1,000 young diphtheria patients are treated annually, is of the opinion that since the introduction of antidiphtheric serum paralysis has become much less frequent. It seems, however, that the cases are not kept under observation long enough at this hospital to warrant such a strong conclusion.

Variot,^d 1898, dismisses the subject briefly by saying that paralysses are not rarer after serum treatment than before, but present the same localization, the same clinical characters, and the same duration as before.

Weill and Deguy^e distinguish two kinds of paralysis: The first including paralysis of the palate and larynx, which they admit is still very frequent, but according to them is less due to diphtheritic intoxication than to local inflammation. The second group includes paralysis of the limbs, eyes, and viscera, which is due to the action of the diphtheria toxine and is much less frequently met with since the introduction of antitoxin.

Rolleston believes that the most satisfactory answer to this question is given by the statistics published annually by the Metropolitan Asylums Board. The yearly admission to its fever hospitals of

^a Welch, W. H.: The treatment of diphtheria by antitoxin. Bull. Johns Hopkins Hosp., July-Aug., 1895, vol. 6, Nos. 52 and 53, p. 1119.

^b McCollom, J. H.: Boston med. and surg. journ., vol. 152, 1905, pp. 621-632.

^c Clinique Infantile, May 15, 1904.

^d La diphtérie et la sérumthérapie, 1898.

^e Traitement de la diphtérie, 1902.

diphtheria patients is considerable and each case is, as a rule, kept long enough for paralysis to develop:

Year.	Number admitted.	Percentage of paralysis cases.
1893.....	2,848	14.2. Pre-antitoxin year.
1894.....	3,666	13.1. Only a few cases injected.
1895.....	3,635	20.4. General employment of antitoxin.
1896.....	4,508	20.5.
1897.....	5,637	20.55.
1898.....	6,566	19.42.
1899.....	7,066	20.0.
1900.....	7,195	18.50.
1901.....	6,926	15.0.
1902.....	6,534	17.07.
1903.....	5,072	17.1.
1904.....	4,687	14.8.
1905.....	4,148	12.4.
1906.....	5,218	10.9.

It is plain from the above figures that while the percentage of paralysis during the years following the introduction of antitoxin is higher than in 1893 and 1894, in recent years a decrease is evident; this is probably due to larger dosage and earlier administration of serum. The medical superintendents of these hospitals pointed out in 1895 that there is more than one explanation of the increase first noted. In the first place, cases that before would have died in the acute stage now survive and suffer those palsies which before were found only in the less severe cases. Secondly, the new treatment aroused fresh interest in diphtheria and stimulated more careful clinical observation.

Rolleston expresses the emphatic opinion that antitoxic treatment does not make paralysis more liable to ensue. He states that the early administration of antitoxin makes paralysis less likely to occur, especially in the severe form. He gives the following figures in support of his views:

Day of the disease.	Paralysis cases.	Percentage.	Severe forms only.	Percentage.
First day.....	1	5.5	0	0.0
Second day.....	16	15.09	4	3.7
Third day.....	28	18.7	8	5.3
Fourth day.....	27	28.7	12	12.7
Fifth day.....	21	35.0	5	8.3
Sixth day.....	15	34.9	10	23.2
Seventh day.....	4	19.4	1	4.7
Ninth day.....	1	50.0	0	.....
Eleventh day.....	1	50.0	1	50.0
Thirtieth day.....	1	100.0	1	50.0
Total.....	115	.....	41	.....

Rolleston fully appreciates and emphasizes the importance of early administration and large dosage in diminishing the incidence, especially in a severe form of subsequent paralysis. In severe cases Rolleston uses 18,000 to 24,000 units, usually repeated once, sometimes twice, by injections on following days. The mildest cases receive early from 3,000 to 12,000 units.

There is no definite proof that post-diphtheritic paralysis ever occurs in cases treated with antitoxin within the first twenty-four hours of the disease. This corresponds precisely with what we see in the guinea pig. Paralysis may follow in cases treated with serum on the second and third day of the disease, again an exact duplicate of the picture we see in the guinea pig.

This emphasizes the importance of administering this sovereign remedy early. But if the case is not seen early, can larger doses prevent the occurrence of post-diphtheritic paralysis and save life?

It seemed to Ransom,^a 1900, worth while to undertake an examination into the conditions under which diphtheritic paralysis occurs in animals and to ascertain by means of experiments what effect, if any, the antitoxin has on this very disagreeable sequel to an attack of diphtheria. As a result of his work Ransom concludes that—

1. Paralysis may certainly be expected after intoxication with not less than one-fourth of the fatal dose. With doses between one-fourth and one-eighth paralysses occur but are not constant, and below one-eighth no paralysis was noticed.

2. The larger the dose of toxine the severer will be the paralysis, if the animal survives long enough.

3. Neutralized mixtures of toxine and antitoxine, containing only about one lethal dose or less, do not appear to cause paralysis.

4. Antitoxine given fifteen to twenty-two hours after intoxication, with doses of toxine not greater than the lethal dose, exercises in large doses a mollifying influence on the subsequent paralysis. This influence is more evident on smaller doses of toxine than on such as are but little less than the minimal fatal dose. Small doses of antitoxine have no evident effect in diminishing the paralysis.

5. Transferring these results to practice among human beings, we may expect liberal doses of antitoxine, given early in the illness, to influence favorably the subsequent paralysis, and this beneficial influence is likely to manifest itself not so much on the local paralysis (soft palate, etc.) as on such symptoms as failure of the heart. Severe cases are, however, likely to be followed by some paralysis in spite of even large doses of antitoxine.

POST-DIPHTHERITIC PARALYSIS IN THE GUINEA PIG.

Diphtheria in the guinea pig closely resembles the same disease in man. Post-diphtheritic paralysis in the guinea pig is an almost exact counterpart of the same complication in man. We are, therefore,

^a Ransom, F.: Diphtheritic paralysis and antitoxine. *Journ. path. and bact.*, 1900 vol. 6, p. 397.

able to bring forward experimental evidence showing the relation of antitoxin to post-diphtheritic paralysis.

It is now well known that guinea pigs may develop paralysis following the injection of a sublethal dose of toxine or the injection of a toxine-antitoxin mixture in which the toxine is but partially neutralized. As will be seen by our experiments, paralysis may unerringly be produced in guinea pigs with a partially neutralized toxine. We look upon the paralysis as a "toxon" poisoning.

By no means every guinea pig that shows symptoms of post-diphtheritic paralysis dies. Recovery from this sequel in the guinea pig is frequent and depends entirely upon the amount of toxon in the toxine-antitoxin mixture. It is very easy to mix the toxine and antitoxin in such proportion that every guinea pig will develop post-diphtheritic paralysis and die. By adding a little more antitoxin or a little less toxine to the mixture the guinea pigs will develop mild paralytic symptoms from which almost all will recover.

Almost all of our work was done with partially neutralized mixtures containing sufficient toxon to produce early and malignant paralysis. As far as the guinea pig is concerned paralysis can rarely be detected before the fourteenth day. The first indications are a softness of the abdominal muscles near the site of the injection. The weakness gradually spreads to the extremities and finally to the muscles of respiration. In the guinea pig paralysis occurring early is almost always followed by death; symptoms appearing late are apt to be mild, and complete recovery follows.

We can confirm the observations of Lewis,^a in that the paralysis in the guinea pig may be slight, affecting but one limb or somewhat embarrassing the respiration; or, it may be severe and cause sudden or gradual death. It may last for two days or two weeks, or it may terminate fatally at any time. The paralysis is never permanent.

Lewis^a recently made a study of diphtheria toxone paralysis in the guinea pig, and concludes as follows:

1. By grouping and analyzing the records of the guinea pigs used in a large number of routine tests of the strength of recently prepared toxins it is shown that the crude toxins, produced by the same culture of diphtheria bacillus under conditions which are identical within limits which it is possible to determine at the present time, differ greatly in the amount of toxon or paralysis-producing poison which they contain.

2. Using old crude toxins which have become relatively stable in composition, in mixtures with antitoxin on the present Ehrlich system, it is shown that—

- (a) Guinea pigs are somewhat more susceptible to the action of

^aLewis, Paul A.: Diphtheria toxon paralysis in the guinea pig. Journ. med. research, vol. 15, no. 3, n. s., vol. 10, no. 3, Dec., 1906, pp. 469-482.

toxon during the winter months than during the summer. A variation probably dependent on the kind of food supplied and possibly also on the ventilation of their quarters.

(b) Guinea pigs of increased resistance to the "toxin" fraction of the poison produced by the diphtheria bacillus also show a well-marked increase in resistance toward toxon. That is, they are less frequently afflicted with paralysis than are animals of normal resistance when treated with unsaturated but nonfatal toxin-antitoxin mixtures.

3. For guinea pigs of normal resistance at least the nearer the L+ dose is approached, supposing the animal to survive the necessary length of time, the greater the chance of paralysis developing.

CAN ANTITOXIN INFLUENCE DIPHTHERITIC PARALYSIS AFTER THE PARALYSIS HAS APPEARED?

Antitoxic serum has been extensively used in France as a curative agent for this sequel and many cases of complete recovery have been reported following its use, after the appearance of paralytic symptoms.

Comby,^a 1904, claims never to have lost a case after its administration. Recently (August, 1906), Comby^b reports further cases illustrating the value of antidiphtheritic serum in the treatment of diphtheritic paralysis. He advocates the free use of the serum whether or not it had been previously used in the treatment of the primary disease. He used 10 to 20 cubic centimeters of the French serum according to age, repeated daily for three, four, or five days if necessary.

Rolleston,^c commenting on Comby's report, points out that the mortality of post-diphtheritic paralysis has always been very low and intimates that the reported cases of cure after the administration of antidiphtheritic serum would have recovered as quickly without it.

From our own experimental evidence obtained upon guinea pigs it seems to us useless to give diphtheria antitoxic serum to control the paralysis *after the paralysis has appeared*.

^a Comby, J.: Paralysies diphtherique gueries par le serum. Arch. de med. enf., Paris, vol. 7, 1904, pp. 411-417.

^b Comby, J.: Paralysie diphtherique guerie par le serum. Arch. de med. enf., vol. 9, no. 8, August, 1906, pp. 480-484.

———: Traitement des paralysies diphtheriques. Bull. et mem. soc. med. de hop. de Paris, 3 s., vol. 23, no. 21, June 21, 1906, pp. 626-631.

^c Rolleston, J. D.: Lancet, July 7 and Sept. 24, 1906.

We injected a number of guinea pigs with 400 or 500 units of antitoxin during various stages of paralysis. These pigs had all been given toxine-antitoxin mixtures for the purpose of testing the strength of various serums bought on the open market in accordance with the law of July 1, 1902.^a

It will be seen from Table 1 that the antitoxin apparently had no influence at all to save life or ameliorate the symptoms when given during the stage of paralysis.

^a An act to regulate the sale of viruses, serums, toxins, and analogous products in the District of Columbia, to regulate interstate traffic in said articles, and for other purposes. Approved July 1, 1902.

TABLE NO. 1.—GUINEA PIGS TREATED WITH ANTITOXIN WHILE PARALYZED.

P=Paralysis.
 B P=Beginning paralysis.
 M P=Mild paralysis.
 C P=Complete paralysis.

+ = Death.
 400=400 units of antitoxin subcutaneously.
 500=500 units of antitoxin subcutaneously.

Guinea pig No.	Toxin-antitoxin mixture injected subcutaneously.	Day after injection of the toxin-antitoxin mixture.													
		17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.
7566	0.142 c. e. toxine No. 5 + $\frac{1}{400}$ e. c. P. D. 07635.....	B P 400		P	P	P	P	P	P	+					
7534	0.142 c. e. toxine No. 5 + $\frac{1}{400}$ e. c. P. D. 08021.....			B P 400	P	+									
7494	0.24 c. e. toxine No. 9 + $\frac{1}{400}$ e. c. P. D. 08516.....							B P	$\frac{P}{400}$	P	P	P	P	P	+
7481	0.24 c. e. toxine No. 9 + $\frac{1}{400}$ e. c. S.-68 D.....							B P	$\frac{P}{400}$	+					
7530	0.142 c. e. toxine No. 5 + $\frac{1}{500}$ e. c. P. D. 08021.....			B P 500	P	+									
7539	0.142 c. e. toxine No. 5 + $\frac{1}{500}$ e. c. P. D. 08021.....			B P 500	P	P	+								
7577	0.142 c. e. toxine No. 5 + $\frac{1}{500}$ e. c. P. D. 07635.....		B P 500	P	P	P	P	P	P	P	P	+			
7528	0.142 c. e. toxine No. 5 + $\frac{1}{400}$ e. c. P. D. 08021.....			M P 400	P	P	+								
7532	0.142 c. e. toxine No. 5 + $\frac{1}{400}$ e. c. P. D. 08021.....			M P 400	P	+									
7533	0.142 c. e. toxine No. 5 + $\frac{1}{400}$ e. c. P. D. 08021.....			M P + 400											
7588	0.142 c. e. toxine No. 5 + $\frac{1}{300}$ e. c. N. Y. B. H. 305-6.....	M P 400	P	P	P	P	+								
7519	0.142 c. e. toxine No. 5 + $\frac{1}{300}$ e. c. P. D. 08021.....			M P 500	P	P	+								

[illegible]

CAN ANTITOXIN INFLUENCE DIPHTHERITIC PARALYSIS WHEN
INJECTED SHORTLY BEFORE THE PARALYSIS DEVELOPS?

The following tests show that the administration of 400 units of antitoxin, given fifteen days after the injection of a partially neutralized dose of toxine and five to six days before paralysis appeared, can not control the appearance of the symptoms or save life. Further experimental proof of this will be found in Tables Nos. 3 and 4. Guinea pigs Nos. 7930 and 7929 are illustrations of toxon poisoning with complete recovery.

TABLE NO. 2.—THE EFFECT OF ANTITOXIN WHEN INJECTED SHORTLY
BEFORE SYMPTOMS APPEAR.

Guinea pig No.	Toxine-antitoxin mixture.	Paralysis.	Result.
7899	0.24 c. c. toxine No. 9+ $\frac{1}{1000}$ c. c. Stearns No. 1500.	Paralysis began about 20th day. Control.	Death, 26th day.
7900	0.24 c. c. toxine No. 9+ $\frac{1}{1000}$ c. c. Stearns No. 1500.	Paralysis began about 20th day=400 units antitoxin 15th day.	Death, 29d day.
7930	0.24 c. c. toxine No. 9+ $\frac{1}{1000}$ c. c. N. Y. B. H. 310.	Paralysis began about 24th day. Control.	Recovered.
7929	0.24 c. c. toxine No. 9+ $\frac{1}{1000}$ c. c. N. Y. B. H. 310.	Paralysis began about 21st day=400 units antitoxin 15th day.	Recovered.
7925	0.24 c. c. toxine No. 9+ $\frac{1}{1000}$ c. c. N. Y. B. H. 310.	Paralysis began about 20th day. Control.	Death, 25th day.
7926	0.24 c. c. toxine No. 9+ $\frac{1}{1000}$ c. c. N. Y. B. H. 310.	Paralysis began about 20th day=400 units antitoxin 15th day.	Death, 15th day.
7924	0.24 c. c. toxine No. 9+ $\frac{1}{1000}$ c. c. N. Y. B. H. 310.	Paralysis began about 20th day. Control.	Death, 15th day.
7923	0.24 c. c. toxine No. 9+ $\frac{1}{1000}$ c. c. N. Y. B. H. 310.	Paralysis began about 21st day=400 units antitoxin 15th day.	Death, 25th day.

HOW LONG AFTER THE INFECTION CAN ANTITOXIN INFLUENCE
PARALYSIS?

A number of tests were undertaken to determine this important point. The first series of guinea pigs were all given an L+ dose of toxine partially neutralized so that all of them, if untreated, as shown by the controls, would have developed paralysis between the thirteenth and fourteenth days and died on the twentieth to the twenty-fifth day.

Each guinea pig in Table No. 3 received a mixture containing 0.142 c. c. of our toxine No. 9, which is the L+ dose of this poison, plus $\frac{1}{1000}$ c. c. of antitoxic horse serum. The minimal lethal dose of this toxine is 0.006. Each guinea pig, therefore, received 24 minimal lethal doses. The toxine and antitoxin were mixed and allowed to

stand one hour at room temperature before being injected into the guinea pig.^a Not one of the 50 guinea pigs receiving this mixture died acutely of *toxin* poisoning.

All the guinea pigs receiving an injection of 250 units of the diphtheria antitoxin at intervals of 4, 8, 12, 16, and 20 hours after infection were protected against paralysis. The two guinea pigs (Nos. 8124 and 8125) receiving 250 units of antitoxin twenty-four hours after infection developed slight paralysis on the twenty-fifth day; later than the controls. They made a complete recovery.

The guinea pigs (Nos. 8138, 8139, and 8140) which received 2,000 units of antitoxin twenty-four hours after infection developed very slight paralysis, from which they recovered. It was noticeable that the guinea pigs which received 2,000 units twenty-four hours after infection developed a somewhat milder type of paralysis than those which received 250 units.

Further, the guinea pigs (Nos. 8130 and 8131) receiving repeated injections of 250 units beginning 24 hours after infection developed but slight paralysis.

From the first series we also learn that 1 unit of antitoxin given before or at the time of infection is sufficient to prevent the development of paralysis. On the other hand, as much as 2,000 units, given 24 hours after infection, did not prevent the development of this sequel, although it modified the severity of the palsy and saved life.

^a For details of the technic, see Hygienic Laboratory Bulletin No. 21, "The immunity unit for standardizing diphtheria antitoxin (based on Ehrlich's normal serum); official standard prepared under the act approved July 1, 1902." M. J. Rosenau.

Each guinea pig of the second series (Table No. 4) received the same mixture of toxine and antitoxin as those of the first series.

We learn from this series that three guinea pigs (Nos. 7948, 7949, and 7950) which received 250 units of antitoxin twenty-four hours after infection had paralysis but recovered. In two of them (Nos. 7949 and 7950) the paralysis came on later than in the controls, viz, on the nineteenth day. It is therefore plain that the antitoxin given twenty-four hours after infection had the power of modifying the paralysis and saving the life of these animals.

We learn next that 250 units of antitoxin given forty-eight hours or more after infection totally failed to modify the paralysis or save the lives of the guinea pigs (Nos. 7951, 7952, and 7953).

The animals which received 250 units of antitoxin daily beginning twenty-four hours after infection (Nos. 7978, 7979, and 7980) developed paralysis late and benign in type. The symptoms appeared on the seventeenth, twentieth, and twenty-sixth days, respectively. All three recovered. Here again the antitoxin undoubtedly modified the severity of the paralysis and saved the lives of these pigs.

The guinea pigs which received 250 units of antitoxin daily beginning forty-eight hours after infection nicely demonstrate the importance of using the serum early. Two (Nos. 7981 and 7982) developed paralysis on the seventeenth and twentieth days, respectively, and recovered. The other one (No. 7983) developed paralysis on the fifteenth day and died despite the administration of 1,250 units of antitoxin. Therefore it is plain that antitoxin given forty-eight hours after infection and in large doses may fail to influence the paralysis or save life. However, when given as late as the fourth or fifth day after infection and in repeated doses it seemed to exert some favorable action, for it will be noticed that guinea pigs Nos. 7984 to 7992 developed symptoms on the average several days later than the controls; in one case (No. 7986) death was delayed, and in another case (No. 7988) the animal recovered.

In Table No. 5, in which is shown the third series of guinea pigs given very large doses of antitoxin at varying times following the subcutaneous inoculation of the toxine-antitoxin mixture, we find that only the three guinea pigs (Nos. 8183, 8184, and 8185) which received the antitoxin twenty-four hours after infection recovered. The paralysis in these three pigs was so transient and slight in degree that its existence was open to some doubt in our minds, and is therefore not recorded in the table.

We confess to some disappointment that the guinea pigs receiving such massive doses of antitoxin as 4,000 units forty-eight hours after infection became paralyzed and died. (Nos. 8186, 8187, and 8188.) In Table No. 4 it appears that two of the three guinea pigs receiving repeated doses of antitoxin beginning forty-eight hours after infection recovered, and we were led to hope that one very large dose given forty-eight hours after infection would modify the paralysis more favorably than was actually the case with the guinea pigs in Table No. 5. This emphasizes more forcibly the importance of giving antitoxin early. It should be remembered that 4,000 units of antitoxin for a guinea pig weighing 250 grams is an enormous dose and would represent about 400,000 units for a 50-pound child.

TABLE No. 5.—THE EFFECT OF ANTITOXIN, GIVEN AFTER INFECTION, UPON THE DEVELOPMENT OF PARALYSIS.
(THIRD SERIES.)

P=Paralysis. + = Death.		Units of antitoxin injected subcutaneously.																								
		Units of antitoxin given.												Day after injection of the toxine-antitoxin mixture.												
Guinea-pig No.		24 hours after	48 hours after	72 hours after	96 hours after	5 days after	6 days after	7 days after	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.
8178a											P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
8178b																										
8179										P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
8180										P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
8181										P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
8182										P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
8183	250																									
8184	1,000																									
8185	4,000																									
8186	4,000																									
8187	4,000									P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
8188	4,000																									
8189	4,000																									
8190	4,000																									
8191	4,000																									
8192					4,000					P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
8193				4,000																						
8194				4,000																						
8195					4,000					P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
8196						4,000																				
8197							4,000																			

Very slight paralysis, if
any.
Do.
Do.

Our results upon the guinea pig correspond with the statistics of post-diphtheritic paralysis in man following treatment with antitoxic serum. We would, however, expect antitoxin when given in massive doses to have a more favorable influence upon paralysis in man than in guinea pigs, for the reason that our experimental animals received 24 minimal lethal doses of toxine but partially neutralized with antitoxic serum. This produces an early and fatal form of paralysis. In man this malignant form but rarely follows cases that have recovered from diphtheria. If, then, we are able to modify or control this sequel and save life in the guinea pig by using antitoxin forty-eight hours after infection we could expect a like beneficial result in man to follow the use of antitoxin a longer period after the onset of illness. We gave our guinea pigs the extreme charge of toxine at once; in man the toxine is doubtless elaborated and absorbed more slowly. Therefore, the following figures are significant:

Petit^a found that in 48 cases of paralysis observed at the Hôpital des Enfants malades, following diphtheria, treated with serum, the following:

Cases treated about the 2nd day, 6.25 per cent developed paralysis.

Cases treated about the 3rd day, 19 per cent developed paralysis.

Cases treated about the 4th day, 24.70 per cent developed paralysis.

Cases treated about the 7th day, 38.70 per cent developed paralysis.

Monti^b states that of the cases treated—

About the 3rd day of the disease, 8 per cent developed paralysis.

About the 4th day of the disease, 12 per cent developed paralysis.

About the 5th day of the disease, 33.3 per cent developed paralysis.

About the 6th day of the disease, 50 per cent developed paralysis.

About the 7th day of the disease, 66.2 per cent developed paralysis.

Reichsfald^c says that of cases treated—

About the 2nd day of the disease, 25 per cent developed paralysis.

About the 3rd day of the disease, 33 per cent developed paralysis.

About the 5th day of the disease, 50 per cent developed paralysis.

See also Rolleston's cases, page 13.

CAN ANTITOXIN, GIVEN BEFORE INFECTION AS A PROPHYLACTIC, PREVENT POST-DIPHTHERITIC PARALYSIS?

Although we have but limited data upon this question we are enabled to answer it affirmatively. Even so small a quantity as one unit, given to a guinea pig twenty-four hours before the injection of

^a Petit, Rene: Note sur 48 cas de paralysis diphtheretique. Rev. mens. mal. enf., vol. 15, 1897, p. 76.

^b Monti., Wiener med. Woch., 1895, no. 4 and 5.

^c Reichsfald. Revue hebdomadaire 1895 no. 6 (text in Russian).

a toxine-antitoxin mixture containing sufficient *toxon* to invariably cause paralysis in control animals, is sufficient to prevent the development of paralysis and save life (see guinea pigs Nos. 8106, 8107, 8110, and 8111, Table No. 3).

SUMMARY AND CONCLUSIONS.

Post-diphtheritic paralysis in the guinea pig is an almost exact counterpart of the same sequel in man. We are therefore able to bring forward experimental evidence showing the effect of antitoxin upon post-diphtheritic paralysis.

In the guinea pig antitoxin can not influence the diphtheritic paralysis after the paralysis has appeared.

Antitoxin has no influence in preventing post-diphtheritic paralysis if injected shortly before the paralysis develops.

Antitoxin given twenty-four hours after the infection can save the life of the guinea pig and greatly modify the paralysis.

Antitoxin given in a single large dose forty-eight hours after the infection did not modify the paralysis or save life. Thus, in our experiments 4,000 units failed to modify the paralysis or save the life of guinea pigs weighing about half a pound. Weight for weight this corresponds to 400,000 units for a 50 pound child.

Antitoxin given in repeated injections beginning twenty-four or forty-eight hours following infection seems to have a more favorable effect upon the subsequent paralysis than a single injection.

A very small quantity (1 unit) of antitoxin given twenty-four hours before or at the time of infection in our experiments prevented the development of paralysis.

In man we would expect more favorable results from the use of antitoxin than our work upon the guinea pig indicates, for we were dealing with an early and malignant form of experimental post-diphtheritic paralysis. This grave variety is, fortunately, rare in man. Further, we injected the entire charge of the poison directly into the tissues of the guinea pig, while in man the toxine is doubtless elaborated more slowly. We may therefore assume that antitoxic serum, given at a somewhat later period than in our work upon guinea pigs, would exert beneficial effects.

The fact that one unit of antitoxin prevents paralysis and saves life when administered timely, whereas 4,000 units totally fails when delayed 48 hours, emphasizes the importance of using this sovereign remedy early.

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The following *bulletins* [Bulls. Nos. 1-7, 1900 to 1902, Hyg. Lab., U. S. Mar.-Hosp. Serv., Wash.] have been issued.

No. 1.—Preliminary note on the viability of the *Bacillus pestis*. By M. J. Rosenau.

No. 2.—Formalin disinfection of baggage without apparatus. By M. J. Rosenau.

No. 3.—Sulphur dioxid as a germicidal agent. By H. D. Geddings.

No. 4.—Viability of the *Bacillus pestis*. By M. J. Rosenau.

No. 5.—An investigation of a pathogenic microbe (*B. typhi murium* Danyz) applied to the destruction of rats. By M. J. Rosenau.

No. 6.—Disinfection against mosquitoes with formaldehyd and sulphur dioxid. By M. J. Rosenau.

No. 7.—Laboratory technique: Ring test for indol, by S. B. Grubbs and Edward Francis; Collodium sacs, by S. B. Grubbs and Edward Francis; Microphotography with simple apparatus, by H. B. Parker.

By act of Congress approved July 1, 1902, the name of the "United States Marine Hospital Service" was changed to the "Public Health and Marine-Hospital Service of the United States," and three new divisions were added to the Hygienic Laboratory.

Since the change of name of the Service the bulletins of the Hygienic Laboratory have been continued in the same numerical order, as follows:

No. 8.—Laboratory course in pathology and bacteriology. By M. J. Rosenau. (Revised addition March, 1904.)

No. 9.—Presence of tetanus in commercial gelatin. By John F. Anderson.

No. 10.—Report upon the prevalence and georgaphic distribution of hookworm disease (uncinariasis or anchylostomiasis) in the United States. By Ch. Wardell Stiles.

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No. 38.—The influence of antitoxin upon post-diphtheritic paralysis. By M. J. Rosenau and John F. Anderson.

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TREASURY DEPARTMENT

Public Health and Marine-Hospital Service of the United States

WALTER WYMAN, Surgeon-General

HYGIENIC LABORATORY.—BULLETIN No. 39

M. J. ROSENAU, Director

JULY, 1907

THE ANTISEPTIC AND GERMICIDAL
PROPERTIES OF SOLUTIONS OF
FORMALDEHYDE AND THEIR
ACTION UPON TOXINES

By

JOHN F. ANDERSON



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1907

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CONTENTS.

	Page.
Introduction	7
Properties and uses.....	8
Discovery and methods of preservation.....	8
Tests	10
Work by previous investigators.....	12
Original work.....	25
Antiseptic power of formalin.....	25
Antiseptic power against putrefactive organisms.....	25
Antiseptic power against pure cultures.....	26
Summary of antiseptic power against pure cultures.....	33
Germicidal power of formalin	35
Germicidal power against pure cultures.....	35
Time of maximum germicidal effect	37
Action on feces.....	38
Disinfection of sputum.....	40
Action on tetanus and diphtheria toxines	40
Summary and conclusions	43
Bibliography	45

THE ANTISEPTIC AND GERMICIDAL PROPERTIES OF SOLUTIONS OF FORMALDEHYDE AND THEIR ACTION UPON TOXINES.

INTRODUCTION.

Since the discovery by Loew and Fischer, in 1886, of the germicidal action of formic aldehyde, a large amount of work has been done with the substance, both as a gas evolved by various means and in the watery solution.

The recent work by McClintic (1) seems to have established its limitations when used as a gas. The great variation in the results of various workers in regard to its action as a germicide and anti-septic in its watery solution has led me to try to determine its real value. The need of an efficient and, at the same time, a safe and comparatively cheap disinfectant is great, especially for the disinfection of the excreta of persons sick with infectious diseases. For this purpose the agent should be rapid in its action, an efficient deodorant, comparatively cheap, and safe to handle. Formic aldehyde in solution, in my opinion, comes nearer to fulfilling these conditions than any other agent we have at the present time.

In the minds of the laity, a deodorant is more or less synonymous with a germicide, but of course a deodorant may be almost valueless as a disinfectant, and, on the other hand, a disinfectant may possess but slight deodorizing properties. In the use of an agent for the disinfection of excreta, etc., it is important that the person using it understands just what is meant when told to disinfect the discharge with a 5 per cent solution. It may be understood that a 5 per cent solution of the agent is to be added to the discharge, while what is really meant is that the agent shall be in the proportion of 5 parts in 100 of the total volume under treatment. Of course it is needless to say that there must be a thorough mixture of the agent and of the material to be disinfected, and that they must remain in contact a sufficient length of time for the maximum action of the germicide to be exerted. While, for example, a 2 per cent solution might kill typhoid bacilli in thirty minutes, it might take a 1 per cent solution an hour or longer.

A number of samples of different solutions of formic aldehyde were analyzed to determine the exact percentage of the aldehyde contained

therein and quite a variation in the percentage was noted. The highest was 52 per cent, which was in a sample sent by a manufacturer, but it soon decreased to 43; the lowest was 29 per cent.

Bernard Smith (2) examined 29 samples and the lowest percentage he found was 32.45 per cent and the highest 39.11 per cent, the average of the 29 samples being approximately 37 per cent. My work was done with solutions varying from 37.2 per cent to 37.4 per cent and will be discussed in percentages of formalin, the name by which the watery solution is best known, of about 37.2 per cent formic aldehyde.

To Passed Asst. Surg. M. J. Rosenau I am much indebted for suggesting this study and for suggestions as to the work. Also, to Dr. J. H. Kastle and Asst. Surg. Norman Roberts, who very kindly collected for me most of the data on methods of preparation and tests.

PROPERTIES AND USES.

Formalin or solution of formaldehyde is an aqueous solution containing not less than 37 per cent, by weight, of absolute formaldehyde (U. S. P.). Formalin is a clear, colorless liquid with a sharp, penetrating odor, caustic taste, and is very irritating to the mucous membranes. It mixes with alcohol and water in all proportions. When subjected to low temperatures it becomes turbid, due to the formation of paraformaldehyde. It is not corrosive to the metals, except unpolished steel and iron. It combines readily with albumin, and its germicidal action is due to its combination with the cell body of the bacterium.

It is used to some extent for tanning leather. Its use as a preservative of cadavers in embalming fluids is wide. It enters into the composition of Orth's and Kaiserling's solutions, and is frequently used for fixing of specimens in microscopical work. It has been used illegally for the preservation of various food products, especially milk and cream. It is also used to some extent by farmers for the destruction of harmful fungi, such as smut on seed grain and scab on potatoes.

The gas evolved by various methods from the solution is one of our most efficient gaseous disinfectants.

According to Fischer 2 cubic centimeters of a $\frac{1}{1000}$ formalin solution per 100 grams of body weight given intraperitoneally will kill guinea pigs. In whatever way it is introduced into the body it is capable of producing lesions in the parenchymatous organs.

DISCOVERY AND METHODS OF PREPARATION.

Formic aldehyde was first obtained by Hoffman (3) in 1867. He made it by passing the vapors of methyl alcohol, laden with air, over a heated platinum spiral.

In 1875 J. Volhard (4) obtained it in the following manner: A coil of platinum wire was heated in the flame of a wood spirit lamp. The

flame was then extinguished and the slow oxidation of the alcohol was allowed to proceed. Solutions containing $\frac{1}{2}$ per cent of the aldehyde were thus prepared.

In 1881 Kabloukoff (5) prepared large amounts of the aldehyde by passing mixtures of air and methyl alcohol through a glass tube filled with platinized asbestos and heated in a combustion furnace.

In 1884 Tollens (6) prepared the aldehyde by passing air and the vapors of methyl alcohol, heated to 55° C., over platinum foil, and concentrating the distillates by a second distillation. In this manner he obtained solutions containing 11.3 per cent of the aldehyde, and by drying over sulphuric acid he obtained the pure compound.

O. Loew (7) in 1886 devised the following method for the preparation of the aldehyde: A current of dry air is drawn as quickly as possible through a half-liter flask half filled with methyl alcohol and then through a hard glass tube 30 cm. long, containing a cylinder of coarse copper gauze 5 cm. long, and then successively through an empty flask of 300 to 400 c. c. capacity and two flasks half filled with water. The part of the glass tube containing the copper gauze is surrounded with brass gauze and gently heated. When the alcohol vapor reaches the copper gauze the latter glows more or less according to the rate of the current of air passing over it. When the apparatus has once gotten in proper working order the process requires no further attention beyond keeping up the supply of alcohol, and the apparatus may be left running night and day. A 15 per cent to 20 per cent solution of formic aldehyde was obtained in this way. Tollens (6) in 1886 obtained still better results by passing the air through methyl alcohol that had been heated to 45° – 50° C. and by substituting for platinum foil a coil of copper gauze, omitting the condenser and maintaining a constant stream of air. In this way he was able to obtain 30 per cent to 40 per cent solutions of the aldehyde with ease, and found that 30 per cent of the methyl alcohol burned was converted into the aldehyde.

In 1890 W. Eschweiler (8) employed essentially the same method as Tollens and Loew. He found that the best yield is obtained by keeping the copper gauze at such a low red heat that it only could be seen to glow in the dark. In the first receiver he obtained a 40 per cent solution of formic aldehyde, and the mixed solutions from all the receivers were found to contain from 17 per cent to 18 per cent of formic aldehyde.

In 1886 Loew and Fischer (9) discovered that formic aldehyde possesses powerful antiseptic properties. Since these earlier observations the germicidal action of formic aldehyde has been investigated by Trillat, Buchner, Aronson, Cohn, and others. As the result of these studies, formic aldehyde has come to be used on a large scale as a disinfectant and deodorizer, and the commercial methods used in the

manufacture of 40 per cent solutions of this compound are based on the methods already set forth in the above. These methods, however, are secret processes protected by chemical patents, and hence are not described in the literature.

TESTS.

The following is an outline of the most important methods now in use for the detection and determination of formaldehyde. Those most favorably mentioned in the literature are briefly described.

At the present time formaldehyde is extensively employed as an antiseptic, germicide, and food preservative. Methods therefore have been devised whereby it may be detected and determined (a) in strong solutions, such as formalin; (b) as a gas in the atmosphere of closed spaces, and (c) in admixture with various other substances, usually of an organic nature, such as milk and other foodstuffs.

The following qualitative methods are said to be the most delicate and trustworthy:

Hehner's (10) and its modifications. Bring into contact without mixing two layers, the bottom one of concentrated sulphuric acid, the top one of milk suspected of containing formaldehyde. Richmond and Boseley (11) dilute the milk with its own volume of water, which tends to prevent charring. A purple color at the zone of contact indicates formaldehyde. The casein of the milk is one of the reagents. The test can be applied to substances other than milk by the addition to the liquid to be tested of formaldehyde-free milk or certain other proteids, the best, according to Acree (12), being a globulin extracted from squash seeds. Adding to the acid a solution of ferric chloride (Lyons, 13) or solid potassium chloride (Luebert, 14) is also said to be an improvement.

Lebbin's (15). Boil a few c. c. of the liquid with 0.05 G. of resorcinol and about an equal volume of 50 per cent sodium hydroxide solution. The yellow color changes to red.

Rimini's (16). Directly applicable to foods, especially milk. To 15 c. c. of the substance are added successively 1 c. c. of dilute phenylhydrazine hydrochloride solution, a few drops of fresh sodium nitroprusside solution, and a few drops of caustic soda solution. A blue color is produced, turning finally red.

Hydrochloric acid test (51). Commercial hydrochloric acid (specific gravity 1.2) containing 2 c. c. of 10 per cent ferric chlorid per liter is used as a reagent. Add 10 c. c. of the acid reagent to an equal volume of milk in a porcelain casserole and heat slowly over the free flame nearly to boiling, holding the casserole by the handle and giving it a rotary motion while heating to break up the curd. The presence of formaldehyde is indicated by a violet coloration, varying in depth with the amount present. In the absence of formaldehyde the solution

slowly turns brown. By this test 1 part of formaldehyde in 250,000 parts of milk is readily detected before the milk sours. After souring, the limit of delicacy proves to be about 1 part in 50,000. Various aldehydes when introduced into milk give color reactions under the above treatment, but formaldehyde alone gives the violet coloration, which is perfectly distinguishable and unmistakable.

According to Leach this seems to be a most satisfactory test.

The following quantitative methods are generally considered to be the best:

Romijn's (17) cyanide method. The formaldehyde solution is added to an excess of potassium cyanide solution, and this mixture is at once poured into an excess of silver nitrate solution, which contains enough nitric acid to maintain an acid reaction throughout. The formaldehyde combines quantitatively with the cyanide to form the compound $\text{CH}_2\text{O.KCN}$, the excess of the cyanide reacts with the silver nitrate to form silver cyanide, and the excess of the silver nitrate left in the solution is titrated with ammonium sulphocyanate.

Romijn's (18) iodometric method. To the formaldehyde solution are added 25 c. c. of decinormal iodine solution, followed by enough strong sodium hydroxide solution to make the mixture pale yellow. Allow to stand ten minutes (some authorities say longer), and then add concentrated hydrochloric acid until the reaction is slightly acid. Titrate for free iodine with sodium thiosulphate. Each two atoms of iodine consumed represents one molecule of formaldehyde.

Blank and Finkenbeiner's (19). To a carefully weighed amount of the formaldehyde solution are added normal sodium hydroxide solution, followed at once, drop by drop, by neutral hydrogen peroxide. When the reaction is completed, the excess of alkali is titrated with normal sulphuric acid. Modifications suggested by Schoorl (22).

Legler's (20). To the formaldehyde solution is added an excess of standard ammonia solution. In the gravimetric method the resulting hexamethylenetetramine is evaporated to dryness and weighed. In the volumetric the excess of ammonia is titrated with standard acid. Eschweiler (21) pointed out that when litmus or phenolphthalein is the indicator the hexamethylenetetramine itself is neutral; hence six molecules of formaldehyde need four molecules of ammonia for neutralization; but with methyl-orange, cochineal, Congo-red, or tropeolin the monoacid compound of hexamethylenetetramine is neutral; hence six molecules of formaldehyde need only three of ammonia for neutralization.

The qualitative tests of Hehner (10), Lebbin (15), and Rimini (16) are generally recommended as being about the best. It is generally best to distill the substance and to apply the tests to the distillate. It must be borne in mind that the presence of a trace of formaldehyde in food substances or elsewhere may not be the result of intentional

addition, as formaldehyde exists in the air, in smoke, and elsewhere as an incidental and often unsuspected product.

For the determination of the formaldehyde in strong solutions, the method most highly recommended is that of Blank and Finkenbeiner (19). Legler's volumetric method (20) is also in frequent use.

For the determination of the formaldehyde content of weak solutions Romijn's (18) iodometric method is the most convenient and is trustworthy if the solution is known to be pure; other aldehydes and acetone are especially not allowable. In dilute solutions containing these or unknown substances in addition to the formaldehyde it is safer to use the cyanide method (17).

The exact determination of small amounts of formaldehyde in admixture with other organic matter is always difficult and often impossible, owing to chemical changes taking place between the organic matter and the formaldehyde or between the reagents employed for the formaldehyde and the organic matter. Colorimetric methods (23, 24, 25) furnish approximate results, and in the case of milk, at least, (26) a nearly constant fraction of the formaldehyde can be distilled over if exact methods are employed.

In quantitative determinations of formaldehyde much care is needed on account of its volatility and instability. In many of the best methods, also, unanticipated reactions are apt to vitiate the results unless directions are followed exactly; hence it is recommended by Fresenius and Gruenhut that no result should be accepted without the concordance of at least two distinct methods (27).

WORK BY PREVIOUS INVESTIGATORS.

There has been an immense amount of work done by investigators upon the antiseptic and germicidal value of formalin. The following is a brief résumé of all the principal articles.

Trillat (28) showed that the following percentages of formaldehyde are necessary to prevent putrefaction of bouillon kept at 30° C.:

1:50,000 delayed putrefaction very sensibly.

1:25,000 bouillon unaltered at the end of four days.

1:12,000 remained unaltered after several weeks.

Bouillon inoculated with bacillus anthracis was rendered sterile by 1:25,000.

The putrefaction of 10 c. c. of bouillon inoculated with 10 gtts. human saliva was sensibly delayed by 1:50,000.

1:30,000 remained unaltered at the end of fourteen days.

1:1,000 killed all the organisms in less than two hours.

Gelatine contaminated with sewage water containing 1,800,000 organisms to the c. c. showed no growth after being treated with 1:20,000.

1:1,000 killed all of the organisms after some hours exposure.

Its power of preventing fermentation in milk and wine is very marked in very small proportions, 1:4,000 in wine putting an end to fermentation.

Meat immersed and quickly withdrawn from a solution of 1:500 was preserved from putrefaction for several days.

Aronson (29) found that any proportion of formaldehyde in excess of 1:20,000 prevented the growth of *B. typhosus*, *B. anthracis*, and *Staphylococcus pyogenes aureus*; 1:40,000 hindered the growth, but 1:80,000 seems to have no influence.

He found that the growth of *B. diphtheriæ* was prevented by the application for ten seconds of a solution of formaldehyde containing 1:250; also, that twenty seconds exposure to a solution of 1:400 sterilized a culture of *B. diphtheriæ*.

Berlioz (30) gives the quantity of formalin to 1,000 grams required to check the growth of the organisms and the quantity of formalin to 1,000 grams which did not check their growth, as follows:

	Checks growth.	Does not check growth.
Culture from—	Gram.	Gram.
Leucorrhæal discharge.....	0.03	0.026
<i>B. coli communis</i>.....	.03	.02
<i>B. typhosus</i>.....	.05	.04
<i>B. anthracis</i>.....	.05	.04

Putrefaction of urine and bouillon is prevented by 0.06 gram to 1,000 grams.

Coagulation of milk is prevented by 0.2 gram to 1,000 grams.

Pieces of sterilized silk inoculated with cultures of *B. anthracis* and *typhosus* were immersed in a 1:1,000, 1:500, and 1:100 solution of formalin, then inoculated into bouillon. The bouillon became cloudy.

Blum (31) in his experiments added 10 c. c. of a bouillon culture to 90 c. c. of the formaldehyde solution, making 5 per cent of the 40 per cent solution [Formalin, A. M. S.] or 2 per cent formaldehyde.

B. chicken cholera.—Seven-day culture. 37° C., no effect after ten, seventeen, and twenty-five minutes; but no growth occurred when inoculations were made next day.

Proteus capsulatus.—Eight-day culture. After fifteen minutes the power to grow was much influenced, as a clouding of the inoculated bouillon occurred only after several days. After twenty-five minutes no living bacteria remained.

Staphylococcus pyogenes aureus.—Twenty-four hour culture. Growth much retarded by fifteen and twenty-five minutes exposure. Inoculations after thirty-five minutes remained sterile.

B. typhi abdominalis.—Not killed by exposure for five, ten, fifteen, twenty-five, and thirty-five minutes.

B. anthracis.—Bouillon culture three weeks old. No disinfection after ten, fifteen, and twenty-five minutes. Growth is, however, slower. Bouillon inoculation next day remained sterile. Twenty-five minutes exposure did not affect virulence to white mice.

Anthrax spores.—Silk threads impregnated with anthrax spores not killed by thirty-five minutes exposure. Killed by nine days.

Concludes that the disinfectant action is slow, but the antiseptic action more marked.

Carlo Ascoli (32) used slips of bibulous paper impregnated with cultures of various micro-organisms. The disinfecting agent was allowed to act for different periods, washed in sterile water, planted in bouillon, and placed in the incubator for ten days' observation. He found that 5 per cent formalin killed *V. cholerae* in three minutes, anthrax bacilli in fifteen minutes, anthrax spores in five hours, *B. diphtheriae* in ten minutes, and *Staphylococcus pyogenes aureus* in thirty minutes.

Slater and Rideal (33) made experiments to determine the proportion of formaldehyde required to inhibit the growth of micro-organisms.

Formalin was added to tubes of bouillon, so that they contained formaldehyde in proportions varying from 1:1,000 to 1:20,000. These tubes were inoculated with various micro-organisms and placed in the incubator twenty-four hours. Vigorous cultures were used, either in bouillon or on agar.

Organism.	Proportion formaldehyde inhibiting growth.	Proportion formaldehyde allowing some growth.	Remarks.
<i>Staphylococcus pyogenes aureus</i> .	1:5,000	1:10,000	Growth poor, 1:10,000; delayed much, 1:20,000.
<i>B. typhosus</i>	1:15,000	1:20,000	Very scanty.
<i>B. coli communis</i>	1:7,000	1:10,000	After 72 hours' incubation.
<i>B. anthracis</i>	1:15,000	1:20,000	Scanty growth sixth day.
<i>Spirillum cholerae</i>	1:20,000	.....
<i>B. mallei</i>	1:20,000	.....
<i>B. pyocyaneus</i>	1:7,000	1:10,000	On third day.
<i>B. prodigiosus</i>	1:20,000	.....
<i>B. lacticus</i>	1:20,000	.....
<i>B. butyneus</i> Heuppe.....	1:20,000	.....

Silk threads infected by soaking in twenty-four hour cultures; strength of formaldehyde being 1 per cent.

Organism.	Time required to kill microbes.
<i>Staphylococcus pyogenes aureus</i>	Between 50 and 60 minutes.
<i>B. typhosus</i>	Between 40 and 50 minutes.
<i>B. coli communis</i>	Between 30 and 40 minutes.
<i>B. anthracis</i>	Less than 15 minutes.
<i>Spirillum cholerae</i>	Do.

Silk threads infected with twenty-four hour cultures; strength of formaldehyde 1:1,000.

Organism.	Was not killed after—	Was killed in—
<i>B. anthracis</i> (no spores).....	.....	30 minutes.
<i>Spirillum cholerae</i>.....	.....	2 hours.
<i>Staphylococcus pyogenes aureus</i>	12 hours	24 hours.
<i>B. typhosus</i>	do	Do.
<i>B. coli communis</i>	do	Do.
<i>B. mallei</i>	11 hours	12 hours.
Putrefactive organisms.....	24 hours	

Experiments to determine its value as a disinfectant for soiled linen—Time of exposure to disinfectant twenty to twenty-four hours.

Material.	1 per cent solution.	1:10,000 solution.
Cloths from post-mortem room	Sterile	Not sterile.
Cloths soaked in <i>B. typhosus</i> culture	do	Sterile.
Cloths soaked in culture of <i>Spirillum cholerae</i>	do	Do.
Cloths soaked in culture of <i>Staphylococcus pyogenes aureus</i>	do	Do.

Marcel-Arsine Mariot (34) states that proportions of formaldehyde 1:1,000 to 1:50,000 prevented putrefaction of unsterilized bouillon up to forty-eight hours, when observations ceased. The tubes were kept at 37° C.

G. Bardet (35) found that formalin in the proportion of 1:30,000 sensibly retarded the putrefaction of bouillon kept in the incubator at 30° C. and in 1:25,000 the bouillon remained unaltered at the end of four days; 1:12,000 preserved the bouillon from putrefaction for several weeks.

In sewage containing 1,800,000 organisms per c. c. all of the organisms are destroyed by formalin (proportions not stated).

Small quantities suffice to sterilize flasks containing anthrax and organisms from the saliva.

Ehrlich (36) made the following observations:

100 c. c. of milk + formaldehyde.

	0.02 c. c.	0.004 c. c.	0.002 c. c.	0.0 c. c.
Taste	Distinctly formol.	Very little formol.	Scarcely perceptible.	Good.
Smell	do	do	do	0.
Smell after 24 hours	0	0	0	0.
Status after—				
24 hours	Fresh	Begins to coagulate.	Begins to coagulate.	Coagulated; sour.
48 hours	Begins to coagulate.	Coagulated; sour.	Coagulated; sour.	Lumpy and sour.

Amount of formalin in 100 c. c. of milk.

	0.4 c. c.	0.2 c. c.	0.12 c. c.	0.08 c. c.	0.04 c. c.	0.0 c. c.
Taste	Bad, strong itching in throat.	Bad, strong itching in throat.	Bad itching in throat.	Bad itching in throat.	Bad itching in throat.	Good.
Smell	Strong formol.	Strong formol.	Strong formol.	Formaldehyde.	Formol	0.
Smell, after 24 hours	Weak formol.	Weak formol.	0	0	0	0.
Status after—						
24 hours	Not coagulated.	Not coagulated.	Not coagulated.	Not coagulated.	Not coagulated.	Begins to coagulate.
48 hours	do	do	do	do	do	Coagulated and sour.
96 hours	do	do	do	do	do	Lumpy and sour.
120 hours	do	do	do	do	do	Do.
144 hours	do	do	do	do	Begins to coagulate.	Do.
168 hours	do	do	do	Begins to coagulate.	Coagulated.	Ill smelling, sour, and lumpy.
192 hours	Begins to coagulate.	Begins to coagulate.	Begins to coagulate.	Coagulated.	Coagulated and sour.	Do.

Amount of formalin in 100 c. c. of milk—Continued.

	0.02 c. c.	0.004 c. c.	0.002 c. c.	0.0 c. c.
Taste.....	Distinctly formaldehyde.	Less distinct formaldehyde.	Scarcely perceptible.	Good.
Smell.....	do.....	do.....	do.....	0.
Smell after 24 hours.	0.....	0.....	0.....	0.
Status after—				
24 hours.....	Fresh.....	Fresh.....	Fresh.....	Fresh.
72 hours.....	do.....	Begins to coagulate.	Sour and coagulated.	Sour and lumpy
96 hours.....	do.....	Coagulated and sour.	do.....	Do.
120 hours.....	Begins to coagulate.	do.....	do.....	Do.
144 hours.....	Coagulated and sour.	Lumpy and sour...	Lumpy and sour.	Do.
168 hours.....	do.....	do.....	do.....	Sour, lumpy, foul smelling.

Sibilia (37) experimented with different percentages of formalin upon anthrax spores. His results are indicated in the table here given.

Anthrax spores in suspension used to contaminate silk threads; temperature, 37° C.

Minutes exposure.	1 per cent.			2 per cent.			5 per cent.			10 per cent.		
	Hours.			Hours.			Hours.			Hours.		
	3.	5.	20.	3.	5.	20.	3.	5.	20.	3.	5.	20.
1.....	+	+	—	+	+	—	+	+	—	+	+	+
2.....	+	+	—	+	+	—	+	+	—	+	+	+
5.....	+	+	—	+	+	—	+	+	—	+	+	—
10.....	+	+	+	+	+	+	—	+	+	—	—	—
20.....	+	+	+	+	+	—	—	—	+	—	—	—
30.....	+	+	+	—	—	—	—	—	+	—	—	—
40.....	—	+	—	—	—	—	—	—	+	—	—	—
50.....	—	—	—	—	—	—	—	—	+	—	—	—
60.....	—	—	—	—	—	—	—	—	+	—	—	—

Vanderlinden and De Buck (38) obtained the following:

Showing the results of 5 per cent formalin acting upon organisms for various periods of time.

Organism.	Minutes action of formalin.	Result.
Anthrax spores.....	35	Growth.
B. coli communis.....	15	Killed.
B. diphtheriæ.....	15	Do.
B. typhosus.....	30	Do.
Staphylococcus pyogenes aureus.....	35	Do.
Streptococcus.....	35	Growth.

Showing the results of 10 per cent formalin acting upon organisms for various periods of time.

Organism.	Minutes action of formalin.	Result.
B. coli communis.....	30	Growth.
Typhoid.....	5	Killed.
Streptococcus.....	30	Growth.
Staphylococcus pyogenes aureus.....	30	Do.

Showing the results of 10 per cent formalin acting upon pus for various periods of time, kept at room temperature.

Pus from—	Minutes action of formalin.	Result.
Phlegmon	30	Killed.
Anthrax pustule.....	30	Do.
Osteomyelitis, on sound.....	15	Do.
Osteomyelitis, on sponge.....	5	Do.

Showing results of 5 per cent formalin acting upon pus, kept at room temperature.

Pus from—	Minutes action of formalin.	Result.
Infected compound fracture, on sound and sponge.....	30	Growth.

Showing results of 5 per cent formalin acting upon pus for various periods of time, kept at temperatures of 35 to 38° C.

Pus from—	Minutes action of formalin.	Result.
Osteomyelitis, sound.....	30	Killed.
Osteomyelitis, sponge.....	15	Do.

Showing results of 10 per cent formalin acting upon pus for various periods of time, kept at temperatures of 35 to 38° C.

Pus from—	Minutes action of formalin.	Result.
Phlegmon, sound.....	5	Killed.
Phlegmon, sponge.....	15	Do.

Rideal (39) states that 1 part of formaldehyde to 10,000 of milk the milk remained fresh without curdling for seven days.

Milk and water 10,000 parts and milk and water 100,000 parts, with 1 part of formalin, remained sweet and fresh for twelve and four days, respectively. Control soured on the third day.

One part of formaldehyde to 46.08 parts of milk, or 1 c. c. formaldehyde to 18.432 c. c. milk, keeps it fresh at least three days.

The strength of formalin used by the trade to preserve milk was found to be 1:320.

Strehl (40) used Schering's formalin. Action of spray on carpets. Various kinds of carpets treated by rubbing in virulent cultures (bouillon) of staphylococcus and anthrax, then dried and hung up. Various strengths of formalin solution then sprayed on the surface so as to moisten it evenly. After twenty-four hours pieces were placed in bouillon. Five per cent formalin did not kill staphylococci, but 10 per cent killed all bacteria.

In his original work, Walter (41) calls attention to the misunderstanding arising from the improper use of the terms formaldehyde and formalin. Aronson, Trillat, and most investigators used formaldehyde solutions; Oehmichen used formalin. The author also uses as a basis formalin (40 per cent formaldehyde solution).

Treated nutrient gelatin with different amounts of formalin, inoculated with broth cultures, made Esmarch roll tubes, and observed after a week:

Concentration.	Anthrax spores.	Cholera.	Typhoid.	Staphylococcus pyogenes aureus.	Diphtheria.
1:10,000 and greater.....	—	—	—	—	—
1:20,000.....	+	+	+	+	+
1:50,000 and 1:100,000.....	++	++	++	++	++
Control.....	++	++	++	++	++

— = no growth. + = small growth. ++ = rich growth.

To test the bactericidal power he made up formalin solutions of various strengths in flasks, added to each agar cultures of germs, shook well, and added the mixtures to fluid gelatin from which roll tubes were made after certain exposures. He says that the antiseptic action of what formalin remained after dilution in gelatin was negligible.

SUMMARY OF RESULTS.

Staphylococcus pyogenes aureus.

- 1:2,000, growth after 2 hours' exposure, liquefaction after $1\frac{3}{4}$ hours to half a minute.
 1:1,000, growth after 2 hours, liquefaction after 1 hour and less.
 1:100, no growth after 45 minutes, growth after 30 minutes, liquefaction after 10 minutes.
 3:100, no growth after 2 minutes, growth after 1 minute.

Streptococcus pyogenes.

- 1:2,000, no growth after $1\frac{1}{4}$ hours, growth after 1 hour and less.
 1:1,000, no growth after 20 minutes, growth after 15 minutes.
 1:100, no growth after 1 minute, growth after $\frac{1}{2}$ minute.

Anthrax spores (dried on silk threads).

- 1:2,000, growth after 2 hours, liquefaction after 1 hour and less.
 1:1,000, growth after 2 hours, liquefaction after 2 minutes and less.
 1:100, no growth after 30 minutes, growth after 20 minutes, liquefaction after 5 minutes and less.
 3:100, no growth after 15 minutes, growth after 10 minutes, liquefaction after 5 minutes and less.

B. typhosus.

- 1:1,000, no growth after $1\frac{3}{4}$ hours, growth after $1\frac{1}{2}$ hours and less.
 1:100, no growth after 20 minutes, growth after 15 minutes and less.
 3:100, no growth after 1 minute, growth after $\frac{1}{2}$ minute.

Cholera.

1:1,000, no growth after 1 hour, growth in 45 minutes, liquefaction in 2 minutes and less.

1:100, no growth after 5 minutes, growth after 2 minutes, liquefaction after $\frac{1}{2}$ minute.

3:100, no growth after $\frac{1}{2}$ minute.

Diphtheria.

1:1,000, no growth after $1\frac{1}{2}$ hours, growth after 1 hour and less.

1:100, no growth after 15 minutes, growth after 10 minutes and less.

3:100, no growth after $\frac{1}{2}$ minute.

Putrefying blood (50 c. c. + 49 c. c. aq. dist. — 1 c. c. formalin).

1:100, no growth after $1\frac{1}{2}$ hours, growth after 1 hour, liquefaction after 5 minutes.

Formalin did not work well in disinfecting instruments. Three per cent was efficient in disinfecting those artificially infected.

To determine the action of formalin on larger articles pieces of cloth, a uniform collar, etc., were soaked in cultures of staphylococcus pyogenes aureus, dried, and sprayed with formalin solutions of various strengths. One part was wrapped rather tightly in a towel and the other placed under an air-tight bell jar. After six hours the articles were sterile. The amounts used were 3, 5, 10, and 100 per cent, the results being the same.

In the next experiment large cloths of linen were soaked in staphylococcus bouillon cultures. One was strewn with formalin powder which contained 20 per cent formalin and tied up fairly tight in water-tight tissue. After twenty-four hours some colonies grew on gelatin, but after forty-eight and seventy-two hours none grew; molds grew on all three.

A series of experiments showed that while neither formalin 3 per cent or absolute alcohol alone killed anthrax spores dried on silk threads, a mixture of alcohol and formalin 3 per cent killed them on threads moistened in sterile water after 8 minutes' exposure.

Also, as regards staphylococcus pyogenes aureus—

Absolute alcohol, growth after 3 minutes, none after 4 minutes.

50 per cent alcohol, growth after 10 minutes and less.

3 per cent formalin, no growth in 1 minute.

3 per cent formalin in absolute alcohol, no growth in 1 minute.

3 per cent formalin in 50 per cent alcohol, no growth in 1 minute.

2 per cent formalin in 50 per cent alcohol, no growth in 1 minute.

1 per cent formalin in 50 per cent alcohol, no growth in 4 minutes, growth after 3 minutes.

1 per cent formalin, growth after 10 minutes.

Walter got the following results with artificially infected stools (cholera and B. coli):

1 per cent, cholera killed in 5 minutes. B. coli lived after 60 minutes and less.

3 per cent, cholera killed. B. coli killed after 30 minutes, lived after 10 minutes.

5 per cent, cholera killed. B. coli killed after 30 minutes, lived after 10 minutes.

10 per cent, cholera killed. B. coli killed after 10 minutes, lived after 5 minutes.

His conclusions concerning liquid formalin were as follows:

Concentrations of 1:10,000 make further growth of anthrax, cholera, typhoid, staphylococcus pyogenes aureus, and diphtheria impossible.

One per cent solutions kill pathogenic germ cultures in one hour. In dilute alcoholic solutions the action is more intense.

Three per cent solutions render the hands sterile.

Articles may be disinfected by spraying with formalin solutions and inclosing air-tight.

Feces are rendered germ free in ten minutes by 10 per cent solutions.

Hammer and Feitler (42) noted that formaldehyde in gas form or solution is more active against anthrax and its spores than against various other bacteria. This has given rise to the idea that its bactericidal efficiency was greater than it really was, because anthrax and its spores were assumed to be very resistant, and their destruction led to the assumption that other bacteria would be similarly influenced. Attention is not called to this in the literature. Only Gruber notes how easily anthrax is killed. He says that anthrax spores placed in cattle cars and exposed twenty-four hours to the vapor developed by spraying the inner walls with 10 to 20 per cent solution of formalin were killed.

Bouillon cultures were exposed to various strengths of solution for various times and then carried over to agar (diphtheria to blood serum) and growth observed one week.

Spore-free anthrax was always killed by 1 per cent formalin after five minutes, while cholera, diphtheria, green pus, staphylococcus, and typhoid were only killed after one hour.

Anthrax spores were killed by 1 per cent in two hours, by 0.4 per cent in one hour, and 0.5 per cent in ten minutes.

Spores of other bacteria were killed as follows:

Mycoides, 0.5 per cent, only after one hour.

Subtilis, 0.5 per cent, only after twenty-four hours.

Potato bacteria, 0.5 per cent, only after twenty-four hours.

Burring (43), to determine the germicidal properties of formaldehyde, made tests with spores of *B. anthracis* and *Staphylococcus pyogenes aureus*. Bouillon tubes with formaldehyde in the following proportions were prepared 1:3,000, 1:2,000, 1:800, 1:500, 1:300, and 1:200 and inoculated with virulent cultures of above-named organisms, but showed no growth in any case.

Thresh and Lowden (44) observed no sterilizing effect whatever with spray which did not thoroughly wet the surface with the disinfectants used.

Young, active cultures in bouillon of diphtheria, typhoid, pyocyanus bacilli, and micrococcus prodigiosus were distributed by means of pipettes on surfaces, as wood, whitewash, wall paper; controls always

made. The surfaces of wood and whitewash were scraped deeply in making cultivations. Excluding the experiments which failed by reason of the presence of *B. subtilis*, 5 per cent solution of formalin killed all organisms on wood and wall paper, and failed only with *B. pyocyaneus* on whitewash. With 1 per cent the only failure was with *Streptococcus pyogenes albus* on whitewash; with 2 per cent every surface was absolutely sterilized.

The results of the experiments are:

1. That for spraying to be efficient every portion of the surface infected must be thoroughly moistened with the disinfectant.

2. That whitewashed surfaces require particular attention, being by far more difficult to disinfect than wood or paper. Solutions containing under 2 per cent formalin are not reliable.

Kokubo (45) compared lysol or septoform and formalin soap containing 10 per cent and 25 per cent formalin with carbolic acid. He concluded that both formalin preparations were much more destructive toward anthrax than carbolic acid, for the spores lived in a 3 per cent carbolic acid solution for twenty-five days, while a 50 per cent solution of formalin soap killed in twenty-five minutes; but upon typhoid, streptococcus, and staphylococcus the carbolic acid solution was slightly more active.

Price (46) made a study of the influence of preservatives upon digestive enzymes, undertaken with the object of determining the minimum amount of formaldehyde, boric acid, borax, and salicylic acid required to preserve milk for forty-eight hours, the effect of the several preservatives upon the digestibility of the milk being subsequently determined by feeding the treated milk to calves.

A number of experiments were also carried on to determine the minimum amount of formaldehyde that could be added to milk without affecting the action of certain enzymes in vitro, and, in addition, the effect of formaldehyde upon some of the more common bacteria was studied.

His conclusions were:

1. Formaldehyde added to milk, 1:20,000, preserves it for forty hours.

2. Formaldehyde added to milk, 1:10,000, does not interfere with the digestibility when fed to calves.

3. Milk preserved with formaldehyde fed to calves for long periods; calves remained healthy and gained in weight.

4. Formaldehyde added to milk, 1:2,500 or less, has no effect on the activity of the fresh enzymes, rennet, pepsin, pancreatin, and steapsin in vitro.

5. Formaldehyde plus starch, 1:2,500 or less, has no effect on the conversion of starch by ptyalin and amylopsin in vitro.

6. Formaldehyde with milk, 1:20,000, has no effect on the activity of the enzyme galactose in vitro.

7. Formaldehyde and milk, 1:2,000, prevents the development of the common bacteria; 1:1,560 kills them in twenty-four hours.

Southard (47) found that 1:1,000,000 solution of formalin will prevent development of bacteria, while 1:75,000 is germicidal. A 5 per cent solution gives better results than 2.5 per cent carbolic acid or 1:500 solution of corrosive sublimate.

Levy (48) gives a critical review of literature and methods. He gives 269 references to literature. Following is a tabulated statement of the results of various investigators:

Growth inhibited in formaldehyde dilutions.

Author.	Staphylococcus pyogenes aureus.	B. typhosus.	B. anthracis.	B. coli communis.	B. cholerae.	Observations.
Slater and Rideal.....	1:5,000	1:15,000	1:15,000	1:7,000	1:20,000	Weakened growth at 1:14,000. No certain action at 1:8,000. Minimal growth.
Loëw and Walter.....	1:10,000	1:10,000	1:10,000	.....	1:10,000	
Aronson.....	1:20,000	1:20,000	1:20,000	.....	.....
Trillat and Berlioz .....	.....	1:20,000	1:25,000	1:33,000	.....	1:3,000. 1:6,250 to 1:14,300 according to number of germs. 1:10,000 "Holzin."
Schmitt	1:20,000	1:20,000	.....	.....	.....
Leroy des Barres .....	.....	.....	1:10,000	.....	.....
Schild .....	.....	1:13,000	.....	.....	.....
Abel.....	.....	1:7,000	.....	.....	.....
F. Blum .....	.....	.....	.....	.....	.....
Pottevin.....	.....	.....	.....	.....	.....
Rosenberg.....	.....	.....	.....	.....	.....

The germs are killed as follows:

Observer.	Organism.	Time.	Solution.	Result.
Slater and Rideal.....	Staphylococcus...	55 minutes.	1 per cent formaldehyde.	Dried on silk thread.
	Typhoid.....	45 minutes.	.....do.....	Do.
	Anthrax.....	15 minutes.	.....do.....	Do.
	Colon.....	35 minutes.	.....do.....	Do.
	Cholera.....	15 minutes.	.....do.....	Do.
	Staphylococcus...	24 hours	1 per thousand	Do.
	Typhoid.....	.....do.....	.....do.....	Do.
	Anthrax.....	30 hours	.....do.....	Do.
	Colon.....	24 hours	.....do.....	Do.
	Cholera.....	2 hours	.....do.....	Do.
Aronson	Diphtheria	10 seconds.	$2\frac{1}{2}$ to $\frac{1}{100}$	Dried on wood.
Emichen	Typhosus.....	15 minutes.	$\frac{1}{750}$	Do.
Wernicke	Tubercle .....	.....do.....	1 per cent.	Do.
Rosenberg	Anthrax in blood.	24 hours	$\frac{1}{2}$ per cent.	Using "sterisol" lactose with 3 per cent formaldehyde.
	Anthrax.....		$\frac{1}{10000}$	
Stahl.....	.....do.....	$\frac{1}{2}$ hour	$\frac{1}{1000}$	
	Staphylococcus...		$\frac{1}{1000}$	
Berlioz.....	B. coli.....		$\frac{1}{750}$	
Schmitt .....	.....do.....		$\frac{1}{1000}$	
	Staphylococcus...		$\frac{1}{20000}$	
Ascoli.....	Cholera.....	3 minutes.	5 per cent.	
	Diphtheria	10 minutes.	.....do.....	
	Anthrax.....	15 minutes.	.....do.....	
	Staphylococcus...	30 minutes.	.....do.....	
Kraus.....			$\frac{1}{300}$ $\frac{1}{2000}$	Necessary proportion for killing.
Van der Linden and Buck.	Diphtheria	15-30 minutes.	5 per cent.	
	Typhosus.....	.....do.....	.....do.....	
	Staphylococcus...	.....do.....	.....do.....	
	Streptococcus	30 minutes.	.....do.....	
	B. coli.....	.....do.....	.....do.....	
Blum	Typhosus.....	5 minutes.	.....do.....	
	Staphylococcus...	35 minutes.	.....do.....	
	Anthrax.....	24 hours	.....do.....	
Walter	Nearly all pathogenic organisms.	30 minutes.	$\frac{1}{1000}$	
	Anthrax spores...	$\frac{1}{2}$ hour	1 per cent.	
	.....do.....	15 minutes.	3 per cent.	
Emichen .....	.....do.....	24 hours	.....do.....	
	.....do.....	1 hour	2 per cent.	
Ascoli.....	.....do.....	5 hours	5 per cent.	
Pottevin .....	.....do.....	14 hours	15 per cent.	At 15°.
	.....do.....	5 minutes.	.....do.....	At 52°.
	.....do.....	15 minutes.	2 per cent.	Do.

ORIGINAL WORK.

ANTISEPTIC POWER OF FORMALIN.

A series of experiments was made to determine the amount of formalin necessary to restrain the development of bacteria and molds in stable manure, garden earth, etc. For this purpose nutrient broth was placed in sterile flasks and formalin added in proportion of 1 to 7,000 down to 1 to 500. The broth was then inoculated with the various materials, kept at room temperature, and observed for fourteen days.

TABLE No. 1.—*Nutrient bouillon containing various percentages of formalin contaminated by the addition of garden earth; kept at room temperature (37.2 per cent formic aldehyde).*

Dilution.	Growth appeared on—			
	Second day.	Third day.	Fourth day.	Seventh day.
1 to 7,000	Cloudy; mold on bottom.			
1 to 6,000	do			
1 to 5,000	do			
1 to 4,000	Mold on bottom	Mold		
1 to 3,000	do			
1 to 2,000	do			
1 to 1,000				Mold on bottom.
1 to 500				

TABLE No. 2.—*Nutrient bouillon containing various percentages of formalin contaminated by the addition of stable manure; kept at room temperature (37.2 per cent formic aldehyde).*

Dilution.	Growth appeared on—			
	Second day.	Third day.	Fourth day.	Seventh day.
1 to 7,000	Cloudy	Mold on bottom		
1 to 6,000	do	do		
1 to 5,000	do	do		
1 to 4,000		Cloudy; mold on bottom.		
1 to 3,000		Mold on bottom		
1 to 2,000			Mold on bottom.	
1 to 1,000				Mold on bottom.
1 to 500				

TABLE No. 3.—*Nutrient bouillon containing various percentages of formalin contaminated by the addition of bits of hay; kept at room temperature (37.2 per cent formic aldehyde).*

Dilution.	Growth appeared on—			
	Second day.	Third day.	Fourth day.	Seventh day.
1 to 7,000	Cloudy; surface mold.			
1 to 6,000	do			
1 to 5,000	do			
1 to 4,000	Surface mold	Cloudy		
1 to 3,000		Mold on bottom		
1 to 2,000		Surface mold		
1 to 1,000			Mold on bottom	
1 to 500				

TABLE NO. 14.—*Bovillon* containing various percentages of formalin was distributed in test tubes and each tube was inoculated with a small loopful of a forty-eight-hour agar culture of *B. mallei* kept under observation in the incubator at 37° C. for fifteen days.

[+ means growth; - no growth.]

[illegible]

TABLE NO. 15.—*Bouillon containing various percentages of formalin was distributed in test tubes and each tube was inoculated with a small loopful of a forty-eight-hour agar culture of B. anthracis kept under observation in the incubator at 37° C. for fifteen days.*

[+ means growth: - no growth.]

Dilution.	First day.	Second day.	Third day.	Fourth day.	Fifth day.	Sixth day.	Seventh day.	Eighth day.	Ninth day.	Tenth day.	Eleventh day.	Twelfth day.	Thirteenth day.	Fourteenth day.	Fifteenth day.
1 to 7,000...	-	-	-	-	{ + scant.	+ +	+	#	+	+	+	+	+	+	+
1 to 6,000...	-	-	-	-	{ + scant.	+ +	+	+	+	+	+	+	+	+	+
1 to 5,000...	-	-	-	-	-	-	-	{ + scant.	+	+	+	+	+	+	+
1 to 4,000...	-	-	-	-	-	-	-	|	|	|	|	|	|	|	|
1 to 3,000...	-	-	-	-	-	-	-	|	|	|	|	|	|	|	|
1 to 2,000...	-	-	-	-	-	-	-	|	|	|	|	|	|	|	|
1 to 1,000...	-	-	-	-	-	-	-	|	|	|	|	|	|	|	|
1 to 500....	-	-	-	-	-	-	-	|	|	|	|	|	|	|	|

TABLE No. 16.—*Bouillon containing various percentages of formalin was distributed in test tubes and each tube was inoculated with a small loopful of a forty-eight-hour agar culture of B. diphtheriæ kept under observation in the incubator at 37° C. for fifteen days.*

[+ means growth; - no growth.]

[illegible]

TABLE No. 17.—*Bouillon containing various percentages of formalin was distributed in test tubes and each tube was inoculated with a small loopful of a forty-eight-hour agar culture of Cholera kept under observation in the incubator at 37° C. for fifteen days.*

[+ means growth; - no growth.]

[illegible]

TABLE NO. 18.—*Bouillon containing various percentages of formalin was distributed in test tubes and each tube was inoculated with a small loopful of a forty-eight-hour agar culture of B. pyocyaneus kept under observation in the incubator at 37° C. for fifteen days.*

[+ means growth; - no growth.]

[illegible]

TABLE NO. 19.—*Bouillon containing various percentages of formalin was distributed in test tubes and each tube was inoculated with a small loopful of a forty-eight-hour agar culture of B. dysenteriae Shiga kept under observation in the incubator at 37° C. for fifteen days.*

[+ means growth; - no growth.]

[illegible]

TABLE NO. 23.—*Summary showing lowest dilution in which all growth was restrained.*

Organism.	Dilution in which all growth was re- strained.
<i>Staphylococcus epidermidis albus</i>	1 to 4,000
<i>Staphylococcus pyogenes albus</i>	1 to 3,000
<i>Staphylococcus pyogenes aureus</i>	1 to 3,000
<i>Staphylococcus pyogenes citreus</i>	1 to 3,000
<i>Bacillus typhosus</i>	1 to 3,000
<i>Bacillus coli communis</i>	1 to 3,000
<i>Bacillus dysenteriae</i> (Shiga)	1 to 4,000
<i>Bacillus pyocyaneus</i>	1 to 3,000
<i>Bacillus cholerae</i>	1 to 6,000
<i>Bacillus diphtheriae</i>	1 to 5,000
<i>Bacillus mallei</i>	1 to 6,000
<i>Bacillus anthracis</i>	1 to 4,000
<i>Bacillus pestis</i>	1 to 5,000
<i>Bacillus megaterium</i>	1 to 6,000
<i>Bacillus subtilis</i>	1 to 3,000
<i>Bacillus prodigiosus</i>	1 to 3,000
<i>Bacillus acidi lactici</i>	1 to 6,000
<i>Bacillus proteus</i>	1 to 6,000
<i>Bacillus enteritidis</i>	1 to 3,000

From the above it will be seen that many of the organisms used grew in dilutions as low as 1 to 4,000; a few were restrained in a dilution of 1 to 6,000; none grew in a stronger solution than 1 to 3,000.

GERMICIDAL POWER OF FORMALIN.

The germicidal power of formalin in various strengths was studied on pure cultures, human feces, and sputum. The growth in broth tubes was principally used. Agar plates were also made at corresponding intervals in order to determine when the maximum effect of formalin is exerted.

GERMICIDAL POWER AGAINST PURE CULTURE.

The germicidal power of formalin was determined in 1, 2, 3, 5, and 10 per cent dilutions against the principal pathogenic organisms. The following method was observed in each case: For a 5 per cent strength 94 c. c. of sterile water was placed in a sterile flask and 1 c. c. of a heavy emulsion, freed from clumps, of a forty-eight-hour slant agar culture of the organism being studied was added; then 5 c. c. of formalin was added to the entire contents of the flask and well shaken. One loopful at ten-minute intervals up to one hour was planted in a full tube of nutrient bouillon and the growth noted from day to day.

The experiments were repeated in each dilution so as to check any irregularities that might occur.

TABLE NO. 24.—One per cent formalin (37.2 per cent aldehyde).

Organism	Time of exposure to formalin.									Control grew in—
	Minutes.					Hours.				
	10.	20.	30.	40.	50.	1.	1½.	2.		
<i>Vibrio cholera</i>	—	—	—	—	—	—	—	—	24 hours. Do. Do. Do. Do. Do. Do. Do. Do.	
<i>B. coli communis</i>	+	+	+	+	+	+	+	—		
<i>B. diphtheriæ</i>	+	—	—	—	—	—	—	—		
<i>B. mallei</i>	—	—	—	—	—	—	—	—		
<i>B. pyocyaneus</i>	+	+	+	+	—	—	—	—		
<i>B. dysenteriae</i> (Shiga)	+	+	+	+	+	+	+	+		
<i>Staphylococcus pyogenes albus</i>	+	+	—	+	+	+	+	+		
<i>Staphylococcus pyogenes aureus</i>	+	+	+	+	+	+	—	—		
<i>B. typhosus</i>	+	+	+	+	+	+	—	—		

From the above table it will be seen that the vibrio of cholera failed to grow after ten minutes' exposure; *B. coli* grew up to ninety minutes; *B. diphtheriæ* was killed in twenty minutes; *B. mallei* was killed in ten minutes; *B. pyocyaneus* grew up to forty minutes; *B. dysenteriæ* (Shiga) and *Staphylococcus albus* grew up to two hours; *Staphylococcus pyogenes aureus* and *B. typhosus* grew up to sixty minutes.

TABLE NO. 25.—Two per cent formalin (37.2 per cent aldehyde).

Organism.	Time of exposure to formalin.								Control grew in—
	Minutes.					Hours.			
	10.	20.	30.	40.	50.	1.	1½.	2.	
<i>Vibrio cholera</i>	—	—	—	—	—	—	—	—	24 hours. Do. Do. Do. Do. Do. Do. Do. Do.
<i>B. coli communis</i>	—	+	+	—	+	+s.	—	—	
<i>B. diphtheriæ</i>	—	—	—	—	—	—	—	—	
<i>B. mellei</i>	—	—	—	—	—	—	—	—	
<i>B. pyocyaneus</i>	+	—	—	—	—	—	—	—	
<i>B. dysenteriae</i> (Shiga).....	+	+	+	+	+	+s.	—	—	
<i>Staphylococcus pyogenes albus</i>	+	+	+	+	+	—	—	—	
<i>Staphylococcus pyogenes aureus</i>	+	—	+	—	—	—	—	—	
<i>B. typhosus</i>	+	+	—	+	—	—	—	—	

This table shows that none of the bacteria tested resisted an exposure of longer than sixty minutes to a 2 per cent solution of formalin. The fact that the colon, dysentery, and typhoid bacillus and the cœci were more resistant is shown in this table.

TABLE NO. 26.—Three per cent formalin (37.2 per cent aldehyde).

Organism.	Time of exposure to formalin.									Control grew in—
	Minutes.					Hours.				
	10.	20.	30.	40.	50.	1.	1½.	2.		
<i>Vibrio cholera</i>	—	—	—	—	—	—	—	—	24 hours. Do. Do. Do. Do. Do. Do. Do. Do.	
<i>B. coli communis</i>	+	+	—	—	—	—	—	—		
<i>B. diphtheriæ</i>	+	—	—	—	—	—	—	—		
<i>B. mallei</i>	—	—	—	—	—	—	—	—		
<i>B. pyocyaneus</i>	—	—	—	—	—	—	—	—		
<i>B. dysenteriæ</i> (Shiga).....	—	—	+	—	—	—	—	—		
<i>Staphylococcus pyogenes albus</i>	+	+	+	—	—	—	—	—		
<i>Staphylococcus pyogenes aureus</i>	+	+	—	—	—	—	—	—		
<i>B. typhosus</i>	+	+	—	—	—	—	—	—		

Only one of the organisms, *B. dysenteriæ*, tested resisted an exposure to 3 per cent formalin forty minutes: this organism, *B. coli*, and *Staphylococcus albus* again show to be more resistant than the others tested.

TABLE NO. 27.—Five per cent formalin (37.2 per cent aldehyde).

Organism.	Time of exposure to formalin.									Control grew in—
	Minutes.					Hours.				
	10.	20.	30.	40.	50.	1.	1½.	2.		
<i>Vibrio cholera</i>	—	—	—	—	—	—	—	—	24 hours. Do. Do. Do. Do. Do. Do. Do. Do.	
<i>B. coli communis</i>	+	+	+d	—	—	—	—	—		
<i>B. diphtheriæ</i>	—	—	—	—	—	—	—	—		
<i>B. mallei</i>	—	—	—	—	—	—	—	—		
<i>B. pyocyaneus</i>	—	—	—	—	—	—	—	—		
<i>B. dysenteriae</i> (Shiga).....	+	—	+	+d	—	—	—	—		
<i>Staphylococcus pyogenes albus</i>	+	+	+d	—	—	—	—	—		
<i>Staphylococcus pyogenes aureus</i>	+	+d	—	—	—	—	—	—		
<i>B. typhosus</i>	+	+d	—	—	—	—	—	—		

This table shows practically the same results as with 3 per cent formalin. It would seem that there are a few of the organisms that

are more resistant than the great mass of them which are killed off by the 3 per cent solution, but these finally succumb to a 5 per cent solution.

TABLE No. 28.—*Ten per cent formalin (37.2 per cent aldehyde).*

Organism.	Time of exposure to formalin.								Control grew in—
	Minutes.					Hours.			
	10.	20.	30.	40.	50.	1.	1½.	2.	
<i>Vibrio cholera</i>	—	—	—	—	—	—	—	—	24 hours.
<i>B. coli communis</i>	—	—	—	—	—	—	—	—	
<i>B. diphtheriæ</i>	—	—	—	—	—	—	—	—	
<i>B. mallei</i>	—	—	—	—	—	—	—	—	
<i>B. pyocyaneus</i>	—	—	—	—	—	—	—	—	
<i>B. dysenteriæ</i> (Shiga).....	+	—	—	—	—	—	—	—	Do. Do. Do. Do.
<i>Staphylococcus pyogenes albus</i>	+	—	—	—	—	—	—	—	
<i>Staphylococcus pyogenes aureus</i>	—	—	—	—	—	—	—	—	
<i>B. typhosus</i>	—	—	—	—	—	—	—	—	

Only those organisms which resisted the 5 per cent solution for ten minutes were used. Of the nonspore-bearing organisms only *B. dysenteriæ* and *Staphylococcus albus* survived an exposure of ten minutes to a 10 per cent solution of formalin.

TIME OF MAXIMUM GERMICIDAL EFFECT.

In order to study when the greatest germicidal action is exerted, pure cultures of the five most resistant organisms were exposed to a 2 per cent and a 3 per cent solution of formalin. The dilutions were made just as in the preceding experiments, but instead of making plants in broth a loopful of the exposed culture was put into a full tube of melted agar, and then poured into a petri dish which, as soon as the agar had hardened, was placed in the incubator.

The colonies were counted on the fourth day. Plants were made at five-minute intervals, except in the case of *B. pyocyaneus*, when exposed to 3 per cent formalin, and then plants were made at two-minute intervals.

TABLE No. 29.—*Two per cent formalin (37 per cent aldehyde, 1.8 acidity).*

Organism.	Number of colonies grown at different intervals of exposure.								
	At once.	5 minutes.	10 min-utes.	15 min-utes.	20 min-utes.	30 min-utes.	40 min-utes.	50 min-utes.	60 min-utes.
<i>B. dysenteriæ</i>	Innumerable.	410	22	19	5	3	1	1	1
<i>B. pyocyaneus</i>	do	290	1	0	0	0	—	—	—
<i>B. typhosus</i>	do	6,839	213	8	1	1	0	0	0
<i>Staphylococcus pyo-</i> <i>genes albus.</i>	do	Not count-able.	7,200	4,800	2,600	800	480	63	2
<i>Staphylococcus pyo-</i> <i>genes aureus.</i>	do	1,080	410	94	32	9	2	0	.....

The above results show very plainly that in a 2 per cent solution the maximum effect is executed in the first five minutes, *B. dysenteriæ* and the cocci showing the greatest resistance.

TABLE No. 30.—Three per cent formalin (37 per cent aldehyde, 1.8 acidity).

Organism.	Number of colonies grown at different intervals of exposure.								
	At once.	5 minutes.	10 minutes.	15 minutes.	20 minutes.	30 minutes.	40 minutes.	50 minutes.	60 minutes.
<i>B. dysenteriae</i>	Innumerable.	360	37	16	6	2	2	0	.....
<i>B. typhosus</i>.....	.....do.....	2,580	8	3	1	0	0	.....	.....
<i>Staphylococcus pyo-</i>	.....do.....	Almost in-	4,320	2,820	1,800	93	0	.....	.....
<i>genes albus</i> .		numerable.							
<i>Staphylococcus pyo-</i>	.....do.....	2,160	310	83	21	6	0	.....	.....
<i>genes aureus</i> .									
		2 minutes.	4 minutes.	6 minutes.	8 minutes.	10 minutes.	15 minutes.		
<i>B. pyocyaneus</i>.....	.....do.....	300	29	7	0	0	0	.....	.....

This table is especially interesting as showing that in its effect in a 3 per cent solution upon *B. pyocyaneus* the great mass of organisms are killed in the *first two minutes*.

Both tables show that the larger number of organisms are killed in the first five minutes, the more resistant ones gradually being killed off by a longer exposure.

Compare these results with Tables 25 and 26, page 36.

ACTION ON FECES.

Its germicidal action having been determined against pure cultures, experiments were done to determine its value as a disinfectant of human excreta.

Human feces with urine added was thoroughly mixed with sufficient water so that there should remain no large clumps. A watery suspension from a number of forty-eight-hour agar slants of *B. pyocyaneus* was added to the mixture and well mixed in, this being done on account of the green color it shows in culture, which was used as an index of the destruction of the nonspore-bearing organisms. To an accurately measured quantity of this mixture sufficient formalin was added so as to give a 3 per cent, 5 per cent, or 10 per cent dilution by volume of formalin. Plants were made into broth tubes and agar, which latter were at once poured into petri dishes. The growth in the broth tubes was observed for ten days; the colonies on the plates were counted on the fourth day.

Where the letter "P" appears pyocyaneus, as shown by the characteristic color, was noted.

TABLE NO. 31.—*Feces and B. pyocyaneus*, 3 per cent formalin, 37.2 per cent aldehyde.

[* An anærobic spore-bearing rod.]

Time.	Number of colonies grown.	Days' growth in broth tubes.									
		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
Raw	Innumerable, P	+P	.....	.....	.....	.....	.....	.....	.....	.....	.....
At once.....	Not counted.....	+P	.....	.....	.....	.....	.....	.....	.....	.....	.....
10 minutes.....	273.....	.....	.....	+	.....	.....	.....	.....	.....	.....	.....
20 minutes.....	26.....	.....	.....	+	.....	.....	.....	.....	.....	.....	.....
30 minutes.....	6.....	.....	.....	.....	+	.....	.....	.....	.....	.....	.....
40 minutes.....	4.....	.....	.....	.....	+	.....	.....	.....	.....	.....	.....
50 minutes.....	3.....	.....	.....	.....	+	.....	.....	.....	.....	.....	.....
60 minutes.....	.....	.....	.....	.....	.....	+	.....	.....	.....	.....	.....
90 minutes.....	.....	.....	.....	.....	.....	+	.....	.....	.....	.....	.....
120 minutes.....	.....	.....	.....	.....	.....	+	.....	.....	.....	.....	.....

TABLE NO. 32.—*Feces and B. pyocyaneus*, 5 per cent formalin, 37.2 per cent aldehyde.

[* An anærobic spore-bearing rod.]

Time.	Number of colonies grown.	Days' growth in broth tubes.									
		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
Raw	Innumerable, P	+P	.....	.....	.....	.....	.....	.....	.....	.....	.....
At once.....	Almost innumerable; not counted.....	+P	.....	.....	.....	.....	.....	.....	.....	.....	.....
10 minutes.....	73.....	.....	.....	+	.....	.....	.....	.....	.....	.....	.....
20 minutes.....	14.....	.....	.....	.....	+	.....	.....	.....	.....	.....	.....
30 minutes.....	6.....	.....	.....	.....	+	.....	.....	.....	.....	.....	.....
40 minutes.....	3.....	.....	.....	.....	+	.....	.....	.....	.....	.....	.....
50 minutes.....	.....	.....	.....	.....	.....	+	.....	.....	.....	.....	.....
60 minutes.....	.....	.....	.....	.....	.....	+	.....	.....	.....	.....	.....

TABLE NO. 33.—*Feces and B. pyocyaneus*, 10 per cent formalin, 37.2 per cent aldehyde.

[* An anærobic spore-bearing rod.]

Time.	Number of colonies grown.	Days' growth in broth tubes.									
		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
Raw	Innumerable, P	+P	.....	.....	.....	.....	.....	.....	.....	.....	.....
At once.....	Very few, "spreaders".....	+	.....	.....	.....	.....	.....	.....	.....	.....	.....
10 minutes.....	6.....	.....	+	.....	.....	.....	.....	.....	.....	.....	.....
20 minutes.....	3.....	.....	.....	+	.....	.....	.....	.....	.....	.....	.....
30 minutes.....	1.....	.....	.....	+	.....	.....	.....	.....	.....	.....	.....
40 minutes.....	.....	.....	.....	.....	+	.....	.....	.....	.....	.....	.....

A look at the above tables shows that in all three dilutions the maximum effect is exerted within the first ten minutes. In the 10 per cent dilution the great majority of the bacteria are killed almost immediately; *B. pyocyaneus* was killed in the 3 and 5 per cent dilutions in less than ten minutes and at once in the 10 per cent.

The deodorant action of formalin is an important consideration when used for the disinfection of feces; they are almost completely deodorized at once by a 10 per cent solution; a 5 per cent solution does not completely deodorize, but renders them almost inoffensive in a few minutes. There seems to be but little difference in the deodorant action of a 3 and a 5 per cent solution.

On account of its germicidal efficiency and deodorant action formalin would seem to be one of the most useful agents for the disinfection of infected human discharges when used in a 10 per cent dilution, allowing an exposure of one hour after thorough mixing.

DISINFECTION OF SPUTUM.

In order to determine the efficiency of formalin for the destruction of tubercle bacilli in sputum the following experiment was done:

Ten cubic centimeters of sputa from an advanced case of pulmonary tuberculosis was added to 180 cubic centimeters of sterile water, and the mass of sputum broken up as much as possible. An amount of the mixture of sputum and water equal to that used to inoculate the guinea pigs after exposure to formalin was given to a guinea pig as a control. Sufficient formalin was added to the sputum to make a 5 per cent solution by volume. At intervals of fifteen minutes up to one hour a small amount was given to a guinea pig intraperitoneally, with the following result:

TABLE No. 34.

Time.	Death in—	Post-mortem findings.
15 minutes	71 days	Generalized tuberculosis.
30 minutes	81 days	Do.
45 minutes	72 days	Do.
60 minutes	Killed 5 months later ..	No indication of tuberculosis; had gained in weight.

The control pig died in thirty-five days with lesion of generalized tuberculosis.

The experiment was repeated with another specimen of sputum with practically the same result.

It would seem from the above that 5 per cent formalin in one hour was sufficient to render tuberculous sputum harmless to a guinea pig.

ACTION OF FORMALIN ON TETANUS AND DIPHTHERIA TOXINES.

Aronson (49) called attention to the fact that formalin, in the proportion of 1 to 500, added to diphtheria toxine, was sufficient to protect a guinea pig against 100 fatal doses of the toxine.

Burckhard (50) found that formalin, when added to tetanus toxine in the proportion of 1 to 250, was sufficient to protect a mouse against a dose of tetanus toxine that caused the death of the control in twenty-four hours. Burckhard does not seem to have determined the least fatal dose of his tetanus toxine.

Neither of them states how long the formalin was left in contact with the toxine before it was injected into the animal. My work on the action of formalin was all tested on guinea pigs, and the MLD of toxines accurately determined.

TABLE No. 35.—*Showing the effect of different percentages of formalin on tetanus toxine, six hours' exposure.*

Date.	Weight guinea pig.	Dose in MLDs.	Time exposed, in hours.	Forma- lin.	Result.		
					Death.		Recovery.
					Days.	Hours.	
	<i>Grams.</i>			<i>Per cent.</i>			
March 1, 1907.....	520	100	6	1	2	1	.....
Do.....	375	100	6	2	3	8	.....
Do.....	400	100	6	3	4	4	.....
Do.....	390	100	6	4	7	6	.....
Do.....	400	100	6	5	.....	.....	+

TABLE No. 36.—*Showing the effect of different percentages of formalin on tetanus toxine, twenty-four hours' exposure.*

Date.	Weight guinea pig.	Dose in MLDs.	Time exposed, in hours.	Forma- lin.	Result.		
					Death.		Recovery.
					Days.	Hours.	
	<i>Grams.</i>			<i>Per cent.</i>			
March 1, 1907.....	520	100	24	1	4	21	.....
Do.....	500	100	24	2	14	0	.....
Do.....	510	100	24	3	.....	.....	+
Do.....	480	100	24	4	.....	.....	+
Do.....	580	100	24	5	.....	.....	+

TABLE No. 37.—*Showing the effect of 3 per cent formalin on tetanus toxine, after exposure of from one to six hours.*

Date.	Weight guinea pig.	Dose in MLDs.	Time exposed, in hours.	Forma- lin.	Result.		
					Death.		Recovery.
					Days.	Hours.	
	<i>Grams.</i>			<i>Per cent.</i>			
March 6, 1907.....	325	100	1	3	2	11	.....
Do.....	320	100	2	3	4	4	.....
Do.....	335	100	3	3	4	16	.....
Do.....	315	100	4	3	5	8	.....
Do.....	360	100	5	3	5	0	.....
Do.....	385	100	6	3	6	4	.....

Two control guinea pigs for the above three series died in twenty-seven and twenty-eight hours, respectively.

TABLE No. 38.—*Showing the effect of different percentages of formalin on diphtheria toxine after six hours' exposure.*

Date.	Weight guinea pig.	Dose in MLDs.	Time exposed, in hours.	Forma- lin.	Result.		
					Death.		Recovery.
					Days.	Hours.	
	<i>Grams.</i>			<i>Per cent.</i>			
March 1, 1907.....	400	200	6	1	1	6	.....
Do.....	390	200	6	2	3	13	.....
Do.....	375	200	6	3	7	9	.....
Do.....	400	200	6	4	20	0	Paralysis.
Do.....	425	200	6	5	20	0	Do.

TABLE No. 39.—*Showing the effect of different percentages of formalin on diphtheria toxine after twenty-four hours' exposure.*

Date.	Weight guinea pig.	Dose in MLDs.	Time exposed, in hours.	Formalin.	Result.		
					Death.		Recovery.
					Days.	Hours.	
	<i>Grams.</i>			<i>Per cent.</i>			
March 1, 1907.....	490	200	24	1	23	0	Paralysis.
Do.....	420	200	24	2	25	0	Do.
Do.....	370	100	24	3	.....	.....	—
Do.....	330	200	24	4	.....	.....	—
Do.....	370	200	24	5	.....	.....	—

TABLE No. 40.—*Showing the effect of 3 per cent formalin on diphtheria toxine, after exposure for various lengths of time.*

Date.	Weight guinea pig.	Dose in MLDs.	Time exposed, in hours.	Formalin.	Result.		
					Death.		Recovery.
					Days.	Hours.	
	<i>Grams.</i>			<i>Per cent.</i>			
March 10, 1907.....	420	200	1	3	1	13	.....
Do.....	420	200	2	3	4	8	.....
Do.....	420	200	3	3	4	8	.....
Do.....	430	200	4	3	4	15	.....
Do.....	435	200	5	3	4	4	.....
Do.....	440	200	6	3	4	17	.....

Two control pigs with the toxine alone died in seventeen and nineteen hours, respectively.

A study of the above tables shows that when tetanus toxine is exposed to 5 per cent formalin for six hours a guinea pig is able to withstand 100 MLD of this formalinized toxine; that 3 per cent formalin after twenty-four hours' exposure protects against the toxine; that 3 per cent formalin after one hour destroys a part of the toxine, and that its action increases with the length of exposure.

Diphtheria toxine is more susceptible than tetanus toxine, as 4 per cent formalin after six hours' exposure protects a guinea pig against acute death, paralysis, however, not being prevented. One per cent, after twenty-four hours' exposure, has the same effect. Its action against the toxine increases with the length of exposure.

This action of formalin on toxine is an important property in its use as a disinfectant, for not only are the bacteria themselves destroyed, but their soluble products as well.

Attempts have been made to treat certain septicemic conditions by means of the intravenous injection of weak formalin solutions, but without much success. Perhaps more success would attend its use in localized infections where there is a nest of germs elaborating a toxine which is absorbed and distributed throughout the system. This phase of the subject, it is hoped, will be treated in a later paper.

SUMMARY AND CONCLUSIONS.

Formalin in the proportion of 1 to 5,000 was sufficient to restrain all bacterial growth in bouillon contaminated with garden earth. Molds developed in a dilution of 1 to 1,000.

In a dilution of 1 to 4,000 formalin restrains bacterial growth in bouillon contaminated with stable manure.

A dilution of 1 to 4,000 restrains bacterial growth in bouillon contaminated with wisps of hay. Molds developed in a dilution of 1 to 1,000.

Summary showing lowest dilution in which all visible growth of pure cultures was restrained.

Organism.	Dilution in which growth was restrained.
Staphylococcus epidermidis albus	1 to 4,000
Staphylococcus pyogenes albus	1 to 3,000
Staphylococcus pyogenes aureus	1 to 3,000
Staphylococcus pyogenes citreus	1 to 3,000
Bacillus typhosus	1 to 3,000
Bacillus coli communis	1 to 3,000
Bacillus dysenteriae (Shiga)	1 to 4,000
Bacillus pyocyaneus	1 to 3,000
Bacillus mallei	1 to 6,000
Bacillus anthracis	1 to 4,000
Bacillus pestis	1 to 5,000
Bacillus megaterium	1 to 6,000
Bacillus subtilis	1 to 3,000
Bacillus prodigiosus	1 to 3,000
Bacillus acidi lactici	1 to 6,000
Bacillus proteus	1 to 6,000
Bacillus enteritidis	1 to 3,000
Bacillus diphtheriae	1 to 5,000
Vibro-cholerae	1 to 6,000

One per cent formalin (containing 37.2 per cent aldehyde) killed the vibrio of cholera in ten minutes, B. coli in ninety minutes, B. diphtheriae in twenty minutes, B. mallei in ten minutes, B. pyocyaneus in forty minutes, B. dysenteriae and Staphylococcus albus grew up to two hours, and Staphylococcus pyogenes aureus and B. typhosus were killed in ninety minutes.

Two per cent formalin (containing 37.2 per cent aldehyde) killed B. coli after sixty minutes' exposure, B. diphtheriae after ten minutes, B. pyocyaneus ten minutes, B. dysenteriae sixty minutes. Staphylococcus pyogenes albus sixty minutes, and Staphylococcus pyogenes aureus and B. typhosus after forty minutes.

Three per cent formalin (containing 37.2 per cent aldehyde) killed B. coli after thirty minutes' exposure, B. dysenteriae forty minutes, Staphylococcus pyogenes albus thirty minutes, Staphylococcus pyogenes aureus twenty minutes, and B. typhosus after twenty minutes.

Five per cent formalin (containing 37.2 per cent aldehyde) killed B. coli and Staphylococcus pyogenes albus after thirty minutes' exposure, B. dysenteriae after forty minutes. Staphylococcus pyogenes aureus and B. typhosus after twenty minutes.

Ten per cent formalin (containing 37.2 per cent aldehyde) killed all the nonspore-bearing organisms tested in less than ten minutes, except *B. dysenteriae* and *Staphylococcus pyogenes aureus*, which were killed after ten minutes.

With a 2 per cent solution of formaldehyde the maximum germicidal effect was exerted in the first five minutes.

With a 3 per cent solution this immediate effect is more apparent, and in the case of *B. pyocyaneus* the great mass of organisms is killed in the first two minutes.

A 3 per cent solution destroys a great majority of the nonspore-bearing organisms in feces in the first ten minutes; a few, however, resisting a somewhat longer exposure; the spore-bearing organisms grew up to one hundred and twenty minutes.

Five per cent formalin acting upon feces destroyed most of the nonspore-bearing organisms within ten minutes; a few resisted forty minutes. The spore-bearing organisms resisted as long as sixty minutes.

Feces exposed to 10 per cent formalin solution were rendered practically sterile immediately; a few colonies developed in ten minutes. The spore-bearing organisms were destroyed after forty minutes.

A 10 per cent solution of formalin completely deodorized feces at once. A 3 and 5 per cent solution renders them almost odorless after a very few minutes' exposure.

On account of its germicidal efficiency and deodorant action formalin would seem to be one of the most useful agents for the disinfection of infected human discharges when used in a 10 per cent dilution, allowing an exposure of one hour after thorough mixing.

Tubercle bacilli in tuberculous sputum were killed after an exposure to 5 per cent formalin for sixty minutes. Sputum exposed for fifteen, thirty, and forty-five minutes, respectively, still contained live virulent tubercle bacilli.

When tetanus toxine is exposed to 5 per cent formalin for six hours a guinea pig is able to withstand 100 MLD of this formalinized toxine. Three per cent formalin after twenty-four hours exposure protects against the toxine; it destroys a part of the toxine in one hour, its action increasing with the length of exposure.

Diphtheria toxine is more susceptible than tetanus toxine, as 4 per cent formalin, after six hours exposure, protects a guinea pig against acute death; paralysis, however, is not prevented. One per cent, after twenty-four hours exposure, has the same effect. Its action against the toxine increases with the length of exposure.

This action of formalin on toxine is an important property in its use as a disinfectant, for not only are the bacteria themselves destroyed, but their soluble products as well.

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The following *bulletins* [Bulls. Nos. 1-7, 1900 to 1902, Hyg. Lab., U. S. Mar.-Hosp. Serv., Wash.] have been issued:

- No. 1.—Preliminary note on the viability of the *Bacillus pestis*. By M. J. Rosenau.
- No. 2.—Formalin disinfection of baggage without apparatus. By M. J. Rosenau.
- No. 3.—Sulphur dioxid as a germicidal agent. By H. D. Geddings.
- No. 4.—Viability of the *Bacillus pestis*. By M. J. Rosenau.
- No. 5.—An investigation of a pathogenic microbe (*B. typhi murium* Danyz) applied to the destruction of rats. By M. J. Rosenau.
- No. 6.—Disinfection against mosquitoes with formaldehyde and sulphur dioxid. By M. J. Rosenau.

No. 7.—Laboratory technique: Ring test for indol, by S. B. Grubbs and Edward Francis; Collodium sacs, by S. B. Grubbs and Edward Francis; Microphotography with simple apparatus, by H. B. Parker.

By act of Congress approved July 1, 1902, the name of the "United States Marine-Hospital Service" was changed to the "Public Health and Marine-Hospital Service of the United States," and three new divisions were added to the Hygienic Laboratory.

Since the change of name of the Service the bulletins of the Hygienic Laboratory have been continued in the same numerical order, as follows:

No. 8.—Laboratory course in pathology and bacteriology. By M. J. Rosenau. (Revised edition March, 1904.)

No. 9.—Presence of tetanus in commercial gelatin. By John F. Anderson.

No. 10.—Report upon the prevalence and geographic distribution of hookworm disease (uncinariasis or ancylostomiasis) in the United States. By Ch. Wardell Stiles.

No. 11.—An experimental investigation of *Trypanosoma lewisi*. By Edward Francis.

No. 12.—The bacteriological impurities of vaccine virus; an experimental study. By M. J. Rosenau.

No. 13.—A statistical study of the intestinal parasites of 500 white male patients at the United States Government Hospital for the Insane; by Philip E. Garrison, Brayton H. Ransom, and Earle C. Stevenson. A parasitic roundworm (*Agamomermis culicis* n. g., n. sp.) in American mosquitoes (*Culex sollicitans*); by Ch. Wardell Stiles. The type species of the cestode genus *Hymenolepis*; by Ch. Wardell Stiles.

No. 14.—Spotted fever (tick fever) of the Rocky Mountains; a new disease. By John F. Anderson.

No. 15.—Inefficiency of ferrous sulphate as an antiseptic and germicide. By Allan J. McLaughlin.

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No. 17.—Illustrated key to the trematode parasites of man. By Ch. Wardell Stiles.

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No. 22.—Chloride of zinc as a deodorant, antiseptic, and germicide. By T. B. McClintic.

No. 23.—Changes in the Pharmacopœia of the United States of America. Eighth Decennial Revision. By Reid Hunt and Murray Galt Motter.

No. 24.—The International Code of Zoological Nomenclature as applied to medicine. By Ch. Wardell Stiles.

No. 25.—Illustrated key to the cestode parasites of man. By Ch. Wardell Stiles.

No. 26.—On the stability of the oxidases and their conduct toward various reagents. The conduct of phenolphthalein in the animal organism. A test for saccharin, and a simple method of distinguishing between cumarin and vanillin. The toxicity of ozone and other oxidizing agents to lipase. The influence of chemical constitution on the lipolytic hydrolysis of ethereal salts. By J. H. Kastle.

No. 27.—The limitations of formaldehyde gas as a disinfectant with special reference to car sanitation. By Thomas B. McClintic.

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No. 30.—I. Maternal transmission of immunity to diphtheria toxin. II. Maternal transmission of immunity to diphtheria toxin and hypersusceptibility to horse serum in the same animal. By John F. Anderson.

No. 31.—Variations in the peroxidase activity of the blood in health and disease. By Joseph H. Kastle and Harold L. Amoss.

No. 32.—A stomach lesion in guinea pigs caused by diphtheria toxin and its bearing upon experimental gastric ulcer. By M. J. Rosenau and John F. Anderson.

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No. 34.—I. *Agamafilaria georgiana* n. sp., an apparently new roundworm parasite from the ankle of a negress. II. The zoological characters of the roundworm genus *Filaria* Mueller, 1787. III. Three new American cases of infection of man with horse-hair worms (species *Paragordius varius*), with summary of all cases reported to date. By Ch. Wardell Stiles.

No. 35.—Report on the origin and prevalence of typhoid fever in the District of Columbia. By M. J. Rosenau, L. L. Lumsden, and Joseph H. Kastle (including articles contributed by Ch. Wardell Stiles, Joseph Goldberger, and A. M. Stimson).

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TREASURY DEPARTMENT

Public Health and Marine-Hospital Service of the United States

WALTER WYMAN, Surgeon-General

HYGIENIC LABORATORY.—BULLETIN No. 40

M. J. ROSENAU, Director

May 25, 1908

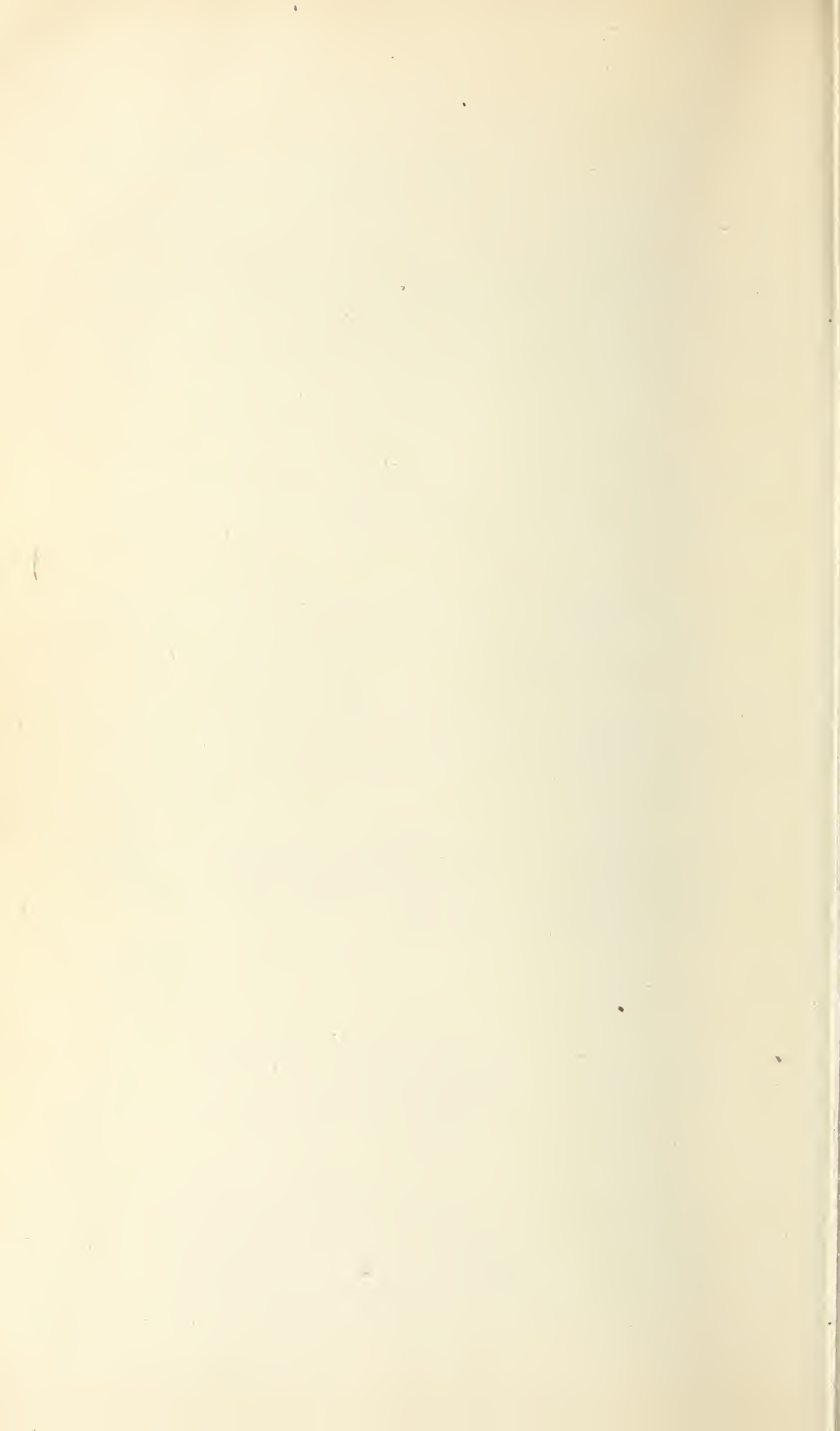
- 1.—The Occurrence of a Proliferating Cestode Larva (*Spar-ganum proliferum*) in Man in Florida. By Ch. Wardell Stiles.
- 2.—A Reexamination of the Type Specimen of *Filaria resti-formis* Leidy, 1880=*Agamomermis restiformis*. By Ch. Wardell Stiles.
- 3.—Observations on Two New Parasitic Trematode Worms: *Homalogaster philippinensis* n. sp., *Agamodistomum nanus* n. sp. By Ch. Wardell Stiles and Joseph Goldberger.
- 4.—A Reexamination of the Original Specimen of *Tænia saginata abietina* (Weinland, 1858). By Ch. Wardell Stiles and Joseph Goldberger.



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CONTENTS.

	Page.
Summary	6
The occurrence of a proliferating cestode larva (<i>Sparganum proliferum</i>) in man in Florida	7
A reexamination of the type specimen of <i>Filaria restiformis</i> Leidy, 1880= <i>Agamomermis restiformis</i>	19
Observations on two new parasitic trematode worms: <i>Homalogaster phil-</i> <i>ippinensis</i> , <i>Agamodistomum nanus</i>	23
A reexamination of the original specimens of <i>Tania saginata abietina</i> Weinland	35
Index to zoological names	39

SUMMARY.

This bulletin contains four articles on parasitic worms.

I. A very peculiar case of parasitism in man in Florida has been found by Doctor Gates, of Manatee. The worms, which live in the subcutaneous tissue and cause an acnelike swelling, have been determined as very closely related to, perhaps identical with, *Sparganum proliferum*; this parasite has been reported on only one former occasion (1905), when it was found in Japan; its life history, source of infection, prevention, and treatment are still unknown; its chief peculiarity is a reproduction in its larval stage by means of forming supernumerary heads, which may become independent and wander through the tissue.

II. *Filaria restiformis* is a worm described as a parasite from man. The original specimen has been found and restudied. It proves to be an immature horse hair worm and it is therefore exceedingly doubtful whether it was a parasite of man.

III. Some parasites referred to us by an official in Manila and Phrapatoom, collected from the cecum of cattle (*Bos* —) prove to be a new species of trematode (*Homalogaster philippinensis*). Some parasites collected from the partridge (*Francolinus subtorquatus*) in West Africa by Dr. F. C. Wellman, and referred to us by the American Society of Tropical Medicine, prove to be an agamic encysted new species (*Agamodistomum nanus*) of trematode, rather closely related to the genus *Clinostomum*. It is impossible to state at present whether or not it is transmissible to man, but it does not agree with any form at present known for man; it is not known at present for any game or other birds in the United States.

IV. A few segments of the original specimen of *Tenia abietina* have recently been found. They are in very poor condition, and this precludes any final judgment as to their exact systematic position. They appear as a dwarfed specimen of *T. saginata*, yet there are certain indications which point to a difference from that species. For the present the form may perhaps best be viewed as a possible subspecies of *T. saginata*.

All bibliographic references are taken from Stiles and Hassall, Index-Catalogue of Medical and Veterinary Zoology, Authors, Bull. 39, U. S. Bureau of Animal Industry.

All drawings were prepared by Leonard H. Wilder, artist of this laboratory.

THE OCCURRENCE OF A PROLIFERATING CESTODE LARVA (SPARGANUM PROLIFERUM) IN MAN IN FLORIDA.^a

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(Figs. 1 to 18.)

MEDICAL HISTORY OF THE CASE.—In June of this year (1907), I received from Dr. H. Gates, of Manatee, Fla., specimens of worms, for identification, which he had taken from the skin of a man. The following extracts from Doctor Gates's letters give all that is known to me regarding the medical history of the case. In connection with this history, it will be well to abstract in considerable detail an account of a very similar case recently reported by Ijima (1905) in Tokyo, Japan.

Gates's case.—Inclosed find specimens of worms from human flesh. They are inclosed in sacks deep under the skin in the connective tissue. My patient has thousands of them all over the trunk; they can be seen and felt as nodules; deeper in the connective tissue in the left groin and left breast there seem to be large masses of them. I send some I obtained by cutting open the nodules and squeezing them out, and others still in the cyst as I found them.—From letter dated June 17, 1907.

In reply to your request for history, etc., of patient (J. W. M.) infected with larval tapeworm, I would state that I first discovered the condition in April of this year. I was called in to treat him for dysentery. While examining over abdomen I found a great many nodules in the skin and also in the fascia between the skin and the muscles. Deep down in the abdominal cavity I found large and small tumors, some movable and others fixed by adhesions. All the lymphatic glands on the side most infected were enlarged and in masses, as if they had formed close union with surrounding tissue.

The muscles were exempt from nodules, but soft and flabby. I opened one nodule near the surface and obtained two worms. Most of the nodules on the

^a This article forms part of a paper which, by permission of the Surgeon-General, was presented upon invitation before the Sixth International Dermatological Congress, in New York, September 9-15, 1907.

skin are about the size and shape of grains of rice. When they first appear there is an itching produced. The cyst is filled with a clear watery fluid in which is found the small worm. In a few days a cyst wall is formed, surrounding the worm, which lies in a jelly or slime like substance. After weeks or months the cyst wall becomes firm, and surrounds one or more worms. In some cysts I have found as many as three worms. In the course of a few months the cyst wall breaks and there is nothing left but, sometimes, a blue spot showing a small hemorrhage; after this is absorbed, there will be only a spot of indurated tissue to mark the place. The places that have been infected the longest appear as a mass of indurated skin and fascia closely connected so that the skin can be picked up only with the mass of worm and tissue.

Patient is now 48 years old. He came to Florida in 1872 from Minnesota and settled with his father on a point on the Manatee River, now known as Manns Point, which was accessible to fish and oysters.

When 23 years old, while hunting in the woods about $1\frac{1}{2}$ miles from the coast, he noticed a small pimple on the left shoulder, which attracted his attention because of the itching. He thought the skin had been punctured by a thorn. He squeezed the lump, from which came a small flat worm about $\frac{1}{8}$ -inch wide and $\frac{3}{4}$ -inch long. One year after the first appearance on the shoulder, he noticed four or five small lumps on his chest; these he opened with a knife and he picked out the same kind of worms; these swellings also had produced an itching sensation. Patient was then living as fisherman on Sarasota Bay.

While fishing, patient's diet consisted of smoked and dried fish, raw oysters, scallops, and clams. Up to five or six years ago he was a robust, healthy specimen of manhood, but lacked energy. At present he has a tired expression, has less energy, and becomes exhausted after little exertion.

From the photographs (figs. 1-2) you will see enlargement of the left breast and shoulder; also of left groin and lumbar region. Spleen and liver are enlarged.

The infection is slight on the right side.

Patient has a wife and five children, all of whom are healthy.

There probably was another case similar to this a few years ago in this county. I have been trying to obtain a history of it, but have failed thus far. The man moved from here to California, where he died. The report was that he was eaten up with worms before he died.—Extracts from letter, August, 1907.

Japanese case.—The patient was a Japanese woman, Yae Tanaka by name, resident in Tokyo or immediate vicinity. Before her marriage to a dealer in old furniture she was a weaver, "occupations which place her decidedly in the lower class of society."

At the age of 33 years, in the spring of 1904, she visited the University Hospital at Tokyo for treatment for left inguinal hernia, entering the surgical wards of Dr. J. Kondo. This hernia was traceable to the presence of parasites in the region of the ligamentum poupartii. In addition to the hernia, she presented a peculiarly swollen condition of the integument, which bore scattered spots of acnelike appearance. This abnormal condition extended over nearly the entire body, except on the face and upper extremities; it was most prominent on the left thigh, which was greatly swollen and presented very much the appearance of elephantiasis, although the skin and underlying tissues were quite soft, so that they hung down by their own weight and could be grasped in a flaccid mass by the hand.

When 25 years old the patient had a tapeworm, the species of which is not known. The dermal affection was first felt when she was 31 years old, so that at time of entrance to hospital it was of about two years' standing. It had given no particular trouble beyond that imposed upon motion by the

swollen thigh and the itching of the skin in parts where a pimplelike hardening made its appearance; scratching with the nails, in order to allay the itching, had led to breaking the skin, from which a soft whitish mass, together with some fluid, could be pressed out. A number of resulting recent scars, especially on the breasts, were visible.

In preparations, made of skin taken from the left thigh, Ijima became convinced of the presence in the connective tissue of numerous encapsuled worms, the cestode nature of which was recognized from the calcareous corpuscles.

On each of two subsequent occasions, July 9 and 24, 1904, a very large piece of skin, with the underlying connective tissue, was excised from the left thigh, in order to relieve the patient of the superfluous tissue. Altogether several pounds in weight were removed during the patient's stay at the hospital.

When freshly excised the subcutaneous tissues presented an unusual appearance. At places several centimeters thick they were moderately rich in panniculus adiposus and extraordinarily rich in lymph; the latter swelled the connective tissue between the panniculi, giving it a slimy or gelatinous appearance and consistency; the slimy character seemed more manifest in the deeper parts; lymph exuded copiously from the cut surfaces; numerous capsules, with the contained worm, were observable as whitish objects, isolated or in clusters, in all parts of the tissues. The thickness of tissues between the surface and the underlying tissue measures 30 to 60 mm., notwithstanding the fact that the hardening process has contracted the subcutaneous connective tissue, through loss of the lymph, into dense fibrous bundles, so that it no longer bears a resemblance to what it was in the fresh state. The corium in the same piece may be said to be 3 to 6 mm. thick; it seems to be on the whole considerably thicker than in the normal state.—Abstracted from Ijima, 1905, pp. 1-21.

Further medical details are not given by Ijima, but he states that Professor Kondo will publish a report of clinical and pathological observations. I have not as yet learned of the publication of the report in question.

From the foregoing abstracts the suspicion immediately arises that in Florida we have a skin infection, hitherto unrecognized for the American continent, and similar to, perhaps identical with, an infection recognized only on one former occasion, namely, in Japan.

It is interesting to note the following comparison in the cases, without laying too much stress upon these points at present:

Both cases occurred near the eastern shore of the continents in question (Old World, between 35° and 36° N., and New World, between 27° and 28° N.); both patients lived in or near cities or towns located directly on the water, very near larger bodies of water (Pacific Ocean and Gulf of Mexico); both patients, though of different sex, were adult (23 years, male; 31 years, female) when the infection was first noticed; both patients belonged to the poorer class of society; one had a professedly fish diet, the other lives in a country where a fish diet is very common; both infections are of long standing (in one case over three years, in the other case about twenty-five years); in both cases the number of individual worms present was very great; both observers (Ijima for Japan and Gates for Florida) independently call attention to the acnelike lesion resulting from the infec-

tion; each patient is a native of the country in which the case was found, and in neither case is there any history given of the patient's having visited the country of the other patient.

NATURE OF THE PARASITE.—A microscopic examination of the worms forwarded by Doctor Gates showed them to contain calcareous corpuscles, hence the diagnosis of cestode infection was immediately established in this case on the same basis as was the diagnosis in the Japanese case. The cestode in question is a larval form, without suckers on the head, and, as far as seen, without any primordium of genital organs. The most striking feature of the worm is its irregular shape, with tendency to proliferation by forming supernumerary heads. These characters immediately bring up for consideration the question as to whether the worm found by Gates is identical with the parasite recently reported by Ijima (1905) for Japan. As the American and the Japanese parasites are very closely related, possibly specifically identical, it will be well to follow the two in comparison. In doing this it will be advisable to abstract Ijima's paper rather liberally, more especially since it is published in a journal not generally accessible to dermatologists.

The worm capsule of Ijima's parasite.—Ijima (1905, 4-5) states that the worm capsules of various sizes occur in abundance in all parts of the subcutaneous tissues and less abundantly in the corium. They were also observed in some numbers in the intermuscular connective tissue, but not in the muscles themselves, so far as such observation could be made on parts incidentally exposed during the surgical operation. In the corium the capsule may be situated so close to the epidermis that the latter is externally raised into an acnelike prominence. On a piece of the preserved skin about 2 inches square, Ijima found at least four such prominences, which, as seen on the surface, appear smooth and less pigmented than the surrounding parts. Capsules so superficially situated might easily be ruptured by force applied through the skin from without.

In shape the capsules are generally subspherical or ovoid. While the smallest of them are considerably less than 1 mm., others measuring 1 to 2 mm. or more are of quite common occurrence; one of the largest seen was elongate, 2.5 mm. broad by 8 mm. long; another measured 3 mm. by 6 mm. The larger capsules were found only in the subcutaneous parts, not in the corium.

The capsular wall, consisting of a dense felt work of connective tissue fibers of the host, may reach nearly 0.33 mm. in thickness; in sections the capsules may appear not unlike a transversely cut blood vessel on account of the tough and compact looking wall; under a hand lens the inner surface of the capsule appears smooth; in some of the larger cysts the internal cavity is traversed by branching trabeculæ; microscopically the wall either shows no special limit-

ing structure, or is lined with a deposit of granular coagulum or tissue debris.

Abundance of parasite.—In Doctor Gates's letter of June 17 he states that his "patient has thousands of" these parasites.

In the Japanese case a section of about 11 sq. cm. showed nearly 60 capsules; in the most thickly infested portions of the thigh there was one capsule to every 20 sq. mm. of cut surface, or to every 100 cub. mm. of infested tissue; this gives 1,000 capsules per 100 cub. cm. of tissue. It was estimated that there must have been considerably over 10,000 capsules in the left thigh alone.

Worms without capsules.—Scarcely any of the worms Gates forwarded to me bore any remnant of the cyst. Very probably most of these specimens were originally encysted and were freed from their cyst by Doctor Gates before he forwarded them.

Comparatively young, slender worms were found by Ijima free in the connective tissue—that is, not surrounded by a capsule.—Ijima, 1905.

Movements of the worm.—Not having seen the worm alive, I can give no details regarding movements.

Ijima reports that the living worms when taken from the patient showed slow movements of extension and contraction, but effecting little or no change in position; upon cooling the worms no longer exhibited such movements; in case of worms placed in salt solution motion could be revived up to a period of four hours if the parasites were slightly warmed.

The head (narrow end) was the most motile, evaginating and invaginating at the apex; in addition to shortening and extending; the terminal, but inconstant, depression in some cases reminded the observer of a terminal sucker, such as seen in the fish bothriocephalid *Cyathocephalus*. In addition to a motion as if feeling about, the head started a lively peristalsis from before backward; such combined movements would aid the worm in penetrating and moving through tissues.

The broader parts of the body showed at most slow vermiform movements, with more or less constant indentation at the extreme hind end.

The head.—Ijima states that the head of his parasite is devoid of any definitely formed or permanent organ of attachment. This holds true also for the worm found by Gates. In some few specimens a slight apical depression is observed, but as the material is preserved in alcohol this might possibly be either an artifact or a depression due to sudden contraction on the part of the worm.

Encysted worms.—Gates writes that he found as many as 3 worms in one cyst. This condition is doubtless due, as Ijima explains also for his case, to the tendency of the worm to multiply by budding.

Ijima reports that the smaller capsules usually contained only a single worm; in the larger cysts, however, 2 or more worms or pieces were more frequently found: from one capsule 5 worms were obtained, and from another 7 worms.

Size and shape.—The longest specimen I have observed is 12 mm. in length. Some of the worms are simple elongated bodies, either more or less flattened, or nearly round in transverse section. The larger specimens, however, assume all manner of bizarre and irregular shapes which can not be well described. These variations in form may be reduced to a progressive but irregular formation of buds, the apex of each bud representing a structure similar to the cephalic end of the original worm: the form varies, of course, according to the number, position, contraction, etc., of the buds, and according to the contraction of the parent stock. Figures 5 to 15 will give an idea of the great variety of forms found.

According to Ijima, many of the worms are small, filiform, about 0.3 mm. in diameter, 3 mm. in length; others attain, even when moderately contracted, 12 mm. long by 2.5 mm. broad. In some specimens the body is flattened dorsoventrally, but there is no clew as to which is the dorsal and which is the ventral surface. In its simplest form the worm is plerocercuslike, or narrow at the head and broader caudad when moderately contracted, or irregularly cylindrical when strongly contracted.

This simple plerocercuslike larva, when encysted, may assume a rather complicated structure, due to its ability to form buds or supernumerary heads, especially on the lateral edges of the flattened body in younger specimens, but quite irregularly in the more complicated older forms. When the heads detach themselves they represent small independent plerocercuslike larvæ, and their method of formation explains the presence of several worms in one cyst.

The formation of heads in the manner described naturally tends to give the worms a very irregular outline; this irregularity is increased by the formation of subcuticular bodies, which Ijima interprets as food material. Ijima assumes that these young heads leave the capsule and wander through the connective tissue until they grow in size, and then in turn form a capsule of their own.

Microscopic anatomy.—According to Ijima, the cuticle of the Japanese form may attain 8μ in thickness; the dermal musculature consists of external circular and internal longitudinal fibers. These statements are correct as applied to the Florida form also.

The *calcareous corpuscles* of the Japanese worm are described by Ijima as spherical or ellipsoidal, 7.5 to 12μ in diameter, and abundant in all parts of the parenchyma, except in the head, in which they are lacking. In the Florida form also the calcareous corpuscles are abundant; they vary in size from 8.8 to 17.6μ ; in shape they are

spherical to ellipsoidal. Thus, in reference to the size of the calcareous corpuscles, there seems to be a slight difference between the American and the Japanese parasites.

Reserve food bodies.—Ijima has described as present in the parenchyma certain bodies which he views as reserve food material. Usually they are roundish or oval, 100 to 300 μ in diameter; but they may become very elongate.

In the Florida parasite similar bodies are present, but in the specimens thus far examined microscopically they do not seem to be quite so numerous or quite so large and prominent as described by Ijima for the Japanese form. It is possible, however, that this is a matter of individual variation.

Excretory system.—The parasites, as described by Ijima, contain an extensive system of anastomosing excretory vessels. In this respect the Florida form agrees with the Japanese species. Some of the canals are quite large, others are smaller, some are very small. Ijima calls attention to the absence of excretory vessels in the peripheral zone of the posterior part of the body; he also states that he was unable to find any opening.

In sections of one of the Florida parasites fine canals were found rather close to the cuticle, but because of the branched condition of the worm it is difficult to state just what portion of the body this was; it was not, however, a head. Likewise, in one case sections of a pore (fig. 18) on the surface, with a centripetally directed canal, were distinctly seen. In view of the absence of genital organs one is naturally inclined to look upon this pore as belonging to the excretory system.

The longitudinal muscles of the Japanese worm are described as well developed, and in addition there is a less strongly developed set of muscle fibers running in different directions but mainly in the transverse plane. Near the head these transverse muscles may be quite regular (some dorsoventral, others crossing these at right angles), but in thicker portions of the body they may become very irregular. This description applies in a general way to the Florida form also.

Nervous system.—Ijima noticed a pair of longitudinal, lateral nerve trunks in the cephalic portion; they seemed to unite close to the tip of the head. In several sections of the Florida worms nerves were distinguished, but details as to their topography were not studied.

Life cycle.—Experiments to raise the adult stage by feeding the Japanese parasites to cats, dogs, and pigs were negative.

As all of my own material was preserved no experiments could be undertaken. The question as to the source of infection, life cycle, etc., must be left open for the present.

SYSTEMATIC POSITION.—From the general structure, especially from the presence of calcareous corpuscles, it is clear that both the Japanese and the Florida parasites are cestodes; the absence of suckers seems to place both forms in the old family Bothriocephalidæ, now known as Dibothriocephalidæ. Further than this, the exact systematic position is not clear at present and can not well be determined until the adult stage is known.

So far as can be judged from the material thus far studied (prior to the meeting of the International Dermatological Congress in New York, September 9, 1907), the Florida form must be considered as very closely allied to, perhaps specifically identical with, the Japanese form. The only anatomical point of difference thus far brought out is a difference in size of the calcareous corpuscles; the only biological difference known is the habitat—in two widely separated localities.

Ijima points out the structural affinities between the Japanese form and the bothriocephalid larval *Sparganum* of Diesing; he refers also to the similarity between the Japanese form and "*Ligula mansonii*" (= *Sparganum mansonii*).

Sparganum is an artificial collective group of worms, distinctly proposed, not as a systematic unit, but as a collective group of larval bothriocephalid cestodes. Under the International Code of Nomenclature (1907) such names may be proposed as a matter of convenience and may be used as if they were generic names; they do not require any type species and hence do not compete with generic names under the law of priority.

Both the Japanese and the American parasite may be temporarily classified in *Sparganum*.

The Japanese worm was originally published under the two names *Plerocercoides prolifer* and *Plerocercus prolifer*, but Ijima distinctly states that he uses the names as a matter of convenience, namely, not in a taxonomic sense. Certain objections arise, however, to the use of the names *Plerocercus* and *Plerocercoides* in this connection, and on this account I transferred (1906a) the parasite to *Sparganum*.

The nomenclatural points involved are somewhat complex and it may be well to explain them in this place.

Under the original international code, the names of larval cestodes and of certain other forms were, for special reasons, exempted from the law of priority. Later (1901), contrary to the judgment of helminthologists, this exemption was done away with.

To apply the law of priority consistently to all such larval names would be almost an impossibility. There are, in fact, many names which have been proposed, not in a generic sense, but as names of admittedly artificial groups, which were used simply as a matter of

temporary convenience, and it was on account of a failure to distinguish between names of this category and names proposed for supposed genera that the exception was rescinded. In 1907, at the Boston congress, a helminthologist proposed the following, which was adopted as part of the code:

"Certain biological groups which have been proposed distinctly as collective groups, not as systematic units, may be treated for convenience as if they were genera, but they require no type species. Examples: *Agamodistomum*, *Amphistomulum*, *Agamofilaria*, *Agamomermis*, *Sparganum*."

As will be shown below, *Plerocercus* and *Plerocercoides* also now come under this paragraph. As matters now stand it is necessary to show that a name was distinctly proposed to designate an artificial collective group in order to bring it under this provision. A name like *Cysticercus* or *Echinococcus*, originally proposed as generic, not distinctly to cover an admittedly artificial group, is subject, now as before, to the law of priority.

The term *Plerocercus* (πλήρης, full; κέρκος, tail) was proposed by Braun (1883a, 98) as designation for the parenchymatous cysticerci (namely those the caudal portion of which contains no fluid) as distinguished from the bladder worms, or true cysticerci; thus it is a descriptive term for a stage of development (larva) possessing certain characters, but not the designation, of a systematic unit. As examples, Braun cited a *Plerocercus* [*Dithyridium lacertæ* Val.] of lizards and a *Plerocercus* of *Tetrarhynchus*. This plerocercus of the lizards happens to figure in a true nomenclatural sense, namely in the genus—

DITHYRIDIUM Rudolphi, 1819.

1819: *Dithyridium* Rud., 1819a, 559 (*lacertæ viridis*, *lacertæ muralis*; Europe. Type by later absolute tautonymy *Piestocystis dithyridium* = *Dith. lacertæ*).

1850: *Piestocystis* Dies., 1850a, 478, 494–496 (*Dithyridium* 1819, renamed; includes as valid species *P. crispa* (Rud.), *P. rugosa* Dies., *P. variabilis* Dies., *P. dithyridium* Dies., [for *Dithyridium* of Rud., namely *D. lacertæ* Valenciennes, 1844]).

This genus is based upon a larval tapeworm (a plerocercus) provided with four suckers, and is classified in the family Tæniidæ; the type species occurs in Europe in lizards of the genus *Lacerta*.

In 1866 Baillet mentioned a parenchymatous cysticercus (namely a plerocercus) from the abdominal cavity of the cat and the dog. In 1882 or 1883, Blumberg described this form as a new species under the name *Cysticercus elongatus*; the latter name however was already preoccupied (cf. *C. elongatus* Leuck., 1842). In 1885, Railliet renamed this form *Cysticercus bailleti*, and in 1893a, p. 314, he classi-

fied it in the genus *Dithyridium* as *D. elongatum*. In the meantime, however, Neumann (1892a, 537-539, figs. 292-293) referred to the same parasite as "*Plerocercoides bailleti*," clearly using a Latin binominal nomenclature.

The name *Plerocercoides* as used by Neumann is traceable to Braun (1883a, 100) who used a German term ("Plerocercoiden") to designate certain larval forms which differed from the cysticercoids by having parenchymatous tails. As examples Braun cites a form which occurs in the body cavity of *Trichodectes canis*, and the young (*Gyporhynchus* of *Tenia macrocephala* and *T. unilateralis*. Blanchard (1888a, 491) used a French form (*Plérocercoides*) of the word, while Neumann (1892a, 537) seems to have first used the Latin *Plerocercoides*. From Neumann's text, however, it is clear that he based his name on Braun's "Plerocercoiden;" hence Neumann's *Plerocercoides* is not a generic name but the designation of an artificial collective group; hence also the type designation (*bailleti*) suggested by myself in 1906 is not necessary under the new (1907) code.

As a plerocercus may be the larval form of species belonging to widely distinct families, even to different orders, it is wise not to use the combination *Plerocercus prolifer* in case a better designation is available; this point probably occurred to Ijima, for he used the combination only once. *Plerocercoides* is also open to the same objection, and in the only use of the term prior to Ijima it was used for a *Dithyridium*.

It so happens that Diesing proposed a name which is open to fewer objections. This is the

Collective Group SPARGANUM Diesing, 1850.

DIAGNOSIS.—*Dibothriocephalida*: An artificial collective group to contain larval stages of bothriocephalid worms which have not reached a stage in their development that they can be determined generically.

Such groups do not require a type species.

In 1906 I placed Ijima's form in this group as

The Proliferating Japanese Tapeworm Larva—SPARGANUM PROLIFERUM (Ijima, 1905) Stiles, 1906.

SPECIFIC DIAGNOSIS.—*Sparganum*: Larva may attain 1 to 12 mm. in length and 2.5 mm. in breadth; head narrower and more motile than posterior end and may show an apical depression which, perhaps, serves as sucker; no true suckers or other organs of attachment present. Calcareous corpuscles spherical or ellipsoidal, 7.5 to 12 μ (Japanese worm) or 8.8 to 17.6 μ (Florida worm) in diameter, and situated in any part of body except head; irregularly distributed reserve food bodies present in older specimens, but they later undergo disintegration; genital organs not present; longitudinal muscles better developed than either dorsoventral or transverse system; transverse fibers do not

divide body into cortical and medullary layers; excretory system well developed, consisting of larger approximately longitudinal branches, with anastomoses. The larvæ possess the power of multiplying by transverse fission and of forming supernumerary heads which may become independent. Adult unknown.

HABITAT.—Encysted in subcutaneous tissue and elsewhere in man.

GEOGRAPHICAL DISTRIBUTION.—Found but twice; once by Ijima in Tokyo, Japan; once by Gates in Manatee, Fla.

Whatever results may be obtained from examination of further material, which I could not study prior to the meeting of this Dermatological Congress, at the present time I do not feel justified in separating the American form specifically from the Japanese species, despite the difference in geographic distribution and the slight difference in the calcareous corpuscles. That the adult stage may eventually prove the Florida form to represent a distinct species seems entirely possible; in fact, when we consider the seeming isolation of the two cases this appears probable. At the same time, if it should eventually be shown that the infection was contracted from eating marine fish, the possibility would not be excluded that the two forms are identical, despite the wide difference in locality. In the interest of conservatism, accordingly, I classify for the present the two in the same species.

In an earlier paper (1906a, 86) I called attention to the fact that because of the remarkable reproduction of the larval stage described by Ijima a new genus would probably be justified. I hesitated somewhat to make the genus without seeing actual specimens. After examining the American specimens I am further convinced of the probability that the worm in question represents a new genus.

The proposition of a new generic name at this time presents both advantages and disadvantages. To continue to call the worm *Sparganum* shows that the family position is recognized, but that the adult is unknown; the worm is, however, so different from the other forms of *Sparganum* that it seems advisable to bring out this difference in a generic name; further, as long as a new generic name seems almost inevitable, it would appear wise to introduce it as soon as possible, in order to reduce its competition (through homonymy) in the future. On the other hand, to introduce a new combination at present does not seem absolutely necessary; its introduction would destroy the advantages we have at present in the use of the name *Sparganum*.

There is, I believe, a conservative method by which the advantages of both plans may be united, namely, by the introduction of a new subgeneric name. This course permits the continuation of the use of the name *Sparganum*, and at the same time brings out the fact that the worm is very different from the other forms of *Sparganum*;

further, it procures for the name any advantages in homonymy which may be gained by its proposal this year instead of later.

As such subgeneric name I propose—

GATESIUS ^a n. subg.

DIAGNOSIS.—*Dibothriocephalidæ*,? *Ligulinæ*, classified temporarily in *Sparganum*: Adult unknown. Larva in its simplest form similar to the plerocercus of *Dibothriocephalus*, except for suckers, which are not indicated; possesses the property of branching and of reproducing by budding, thus forming supernumerary heads which become free from parent and assume the simple plerocercoid form. Body contains numerous calcareous corpuscles, richly developed canal system, and may contain reserve food bodies.

TYPE SPECIES.—*Sparganum (Gatesius) proliferum* (Ijima, 1905) Stiles, 1908, from connective tissue of man; Japan.

It will be noticed that from the form of this proposal the name *Gatesius* is proposed not as a collective group, similar to *Sparganum*, but as a true systematic name of subgeneric rank. When the adult form becomes known the species should be taken out of the group *Sparganum* and this subgenus raised to generic rank.

^a Dedicated to Dr. H. Gates, of Manatee, Fla., who found the first American case.

A REEXAMINATION OF THE TYPE SPECIMEN OF *FILARIA RESTIFORMIS* LEIDY, 1880,= *AGAMOMERMIS RESTIFORMIS*.

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(Figs. 19 to 26.)

While examining some specimens in the Army Medical Museum with the late Dr. James Carroll, I found Leidy's original specimen of *Filaria restiformis*, reported as a parasite of man. As the parasite has been reported but once, and as little is known regarding its nature, I requested Major Carroll to place the specimen at my disposal for study. This he kindly did.

HISTORICAL REVIEW.—Leidy (1880c; 1904a, 157-159) received from Dr. J. J. Woodward, U. S. Army, a specimen of a worm which had been sent to the Army Medical Museum, Washington, D. C., by Dr. C. L. Garnett, of Buffalo, Putnam County, W. Va., together with the following extract from a letter:

During the winter of 1876 a man, a common laborer, aged about 50, presented himself to me for treatment, having a gleet discharge from the urethra, with a burning sensation during and after micturition. Previously he had been treated for gonorrhœa, and I prescribed accordingly. The patient, not improving, applied to other practitioners. In April, 1878, he came to me with a round, vivid-red worm, 26 inches in length (the specimen you now possess), and very active in its movements, instantly coiling up like a watch-spring on being touched. Having no work on helminthology for reference, the only description I found which appeared to answer to the worm was that of *Strongylus gigas*, in Niemeyer, Vol. II, p. 47. The patient is an illiterate man, with no motive for deception. He informed me that he discovered the worm protruding from his penis and drew it out without pain or difficulty. He was in much agitation and alarm about the occurrence, fearing, as he said, that "there might be more behind that one." For a few days previous to its passage his urine was of a milky hue and some time subsequently of a yellow cast and slightly tinged with blood and mingled with mucus. The man is truthful, and no doubt exists in my mind or in the minds of his neighbors as to the correctness of his statements. I regret exceedingly that I did not appreciate the scientific interest of

the subject, and send you the specimen in a fresh state, but the busy routine of a country practitioner's life leaves no time for the study of other than subjects of practical value in one's everyday experience.

Leidy seems to have had some slight misgivings as to whether the worm actually represented a parasite of man, but he described it as a new species, with the following diagnosis:

Body long, restiform, nearly uniformly cylindrical, smooth, shining, elastic, tough, without evident annulation other than transverse wrinkling, with the anterior extremity evenly tapering in the continuous head, the end of which is rounded and smooth or without appendages of any kind; the posterior extremity not tapering, with the caudal end incurved, bluntly rounded, without appendages and imperforate or without evident anal or genital aperture. Mouth a terminal pore without lips, papillæ, or armature of any kind. Pharynx cylindrical and opening into a straight cylindrical intestine, apparently ending in a blind pouch. Generative organs unobserved. Length of worm 26 inches, greatest thickness 1.5 mm. Width of head just behind the rounded extremity 0.375 mm., opposite the commencement of the intestine 0.625 mm., at the middle 1.5 mm., at the incurved caudal extremity 1.5 mm. Length of esophagus 1.125 mm.

Leidy adds that the worm is clearly neither a *Gordius* nor a *Mermis*.

Neither the figures nor the description as given by Leidy seem to be strongly confirmatory of the determination of *Filaria*. In fact, the description and the figure of the esophagus give rise to the question whether the worm may not belong to the *Mermithidæ*, while the striation figured for the caudal end nearly establishes this point. Authors since 1880 have referred to *F. restiformis*, usually without expressing an opinion regarding the species, but Railliet (1893a, 530) and Penel (1905, 8) consider that it was probably a spurious parasite.

Bibliography.—1880: *Filaria restiformis* Leidy, 1880c, 130-132, figs. 1-2 (in *Homo*; West Virginia); 1904a, 157-159, 278.—R. Blanchard, 1890a, 13, fig. 390 a-b; 1895, 785.—Braun, 1883a, 184; 1895b, 227; 1903, 3 ed., 275.—Ijima, 1889b, 367.—Moniez, 1896, 359.—Penel, 1905, 8.—Railliet, 1893a, 530.—Stossich, 1897, 78.—Vaullegeard, 1901, 128.—Ward, 1895, 331; 1903, 704; 1903, 212.

REEXAMINATION OF TYPE.

Condition of material.—The worm is broken into several fragments and is not suitable to a detailed study. It was in alcohol when Doctor Carroll turned it over to me. It was next transferred to alcohol and glycerin; the alcohol was evaporated, and the fragments were studied in glycerin. Very few characters can be recognized, but sufficient was seen to exclude the worm from the genus *Filaria*.

General contour.—By placing the various fragments together figure 21 is obtained, showing the general appearance of the worm, natural size. It will be noticed that while the body is of nearly uniform diameter, the head is distinctly attenuated.

Cuticle.—The cuticle is about $32\ \mu$ thick on the anterior portion, $48\ \mu$ on the tail, and when focused sharply is seen to be composed of several concentric layers; this point is brought out clearly at the ends of the fragments and on transverse section. Sharp focus at high power shows in addition the distinct presence of a diagonal fiber system, such as is found in the *Mermithidæ*, and such as was clearly seen by Leidy and figured in his original publication.

Head.—The cephalic extremity is distinctly attenuated, as observed by Leidy, and then ends rather bluntly. The terminal mouth is very small, and without lips. Directly back of the mouth there are six papillæ, which can still be observed more or less distinctly. The presence of these papillæ definitely excludes the worm from the *Gordiidæ*. Unfortunately it is impossible to roll the head, as it is somewhat compressed, apparently dorsoventrally. Two of the papillæ seem, however, to be anterior of the other four; it seems probable, therefore, that the former are lateral; the latter the submedian papillæ.

About $442\ \mu$ back of the mouth a structure was seen which bore some resemblance to an excretory pore with canal. If, however, the position of the papillæ is correctly interpreted, this excretorylike structure would be lateral, hence this can hardly be the excretory pore, but is more probably an artifact.

Tail.—The tail is curved ventrally and is bluntly rounded. No anus was discernible. In the body could be seen a dark cecal structure. Caudal papillæ were not observed. It would appear, accordingly, that the specimen is either a female or that it is immature.

Esophagus.—In describing the intestine Leidy says: "Pharynx cylindrical and opening into a straight cylindrical intestine, apparently ending in a blind pouch." This description immediately suggests the *Mermithidæ*. The only other group which would seem to come into consideration would be *Dracunculus*, which might be considered as a possibility on the assumption that the structures were to be interpreted similarly to Looss's 1905, fig. 39, p. 183, of *Dracunculus medinensis*. Such interpretation is not in harmony, however, with the diagonal fibers of the cuticle.

From the mouth a distinct cuticular tube, 17.6μ to 26.4μ in diameter, cuticle 8μ , lumen 9 to 10.4μ , can be traced for some little distance; this tube evidently represents the cuticular lining of the esophagus, and it is surrounded by a somewhat indistinct body, evidently the esophagus, about 130μ in diameter.

At a point 0.88 mm. from the anterior extremity there is seen at one side of the esophageal cuticular lining a blind sack, directed cephalad, and apparently representing the fat body reported for the *Mermithidæ*.

Genital organs.—No genital organs can be discovered, so that the conclusion is drawn that the specimen is immature.

Cross section.—Advantage was taken of the fact that the specimen is in fragments to prepare transverse sections (fig. 26) of the end of one of the pieces. A careful histological study of the slides is precluded by the condition of the material. Nevertheless, some important anatomical observations are possible.

The cuticle consists of concentric layers. A subcuticula can also be distinguished more or less clearly. The muscles are divided into six fields, separated by the six longitudinal lines, but the finer structure of these lines can not be interpreted safely.

In view of the foregoing data it appears that *Filaria restiformis* should be transferred from the *Filaridæ* to the family *Mermithidæ*, as *Agamomermis restiformis*. Further, the idea that an error has occurred in interpreting this worm as a parasite of man seems to gain support, for it would be exceedingly difficult to explain the presence of a *Mermithidæ* in the bladder.

OBSERVATIONS ON TWO NEW PARASITIC TREMATODE WORMS: HOMALOGASTER PHILIPPINENSIS, AGAMODISTOMUM NANUS.

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Among the parasites recently sent to us for identification are two interesting trematodes which appear to be new species. One of them (*Homalogaster philippinensis*) is an amphistome from the Philippines, the other (*Agamodistomum nanus*) a distome from Africa.

Genus HOMALOGASTER Poirier, 1883.

1883: *Homalogaster* Poirier, 1883, 74-76, 79 (m. *paloniæ*); ὁμαλός, flat; γαστήρ, stomach; 1885, 120. For bibliography see Stiles and Hassall, 1908, Index Cat., Trematoda, Bull. 37, Hyg. Lab., U. S. P. H. & M. H. S.

GENERIC DIAGNOSIS.—*Paramphistomidæ*,? *Cladorchinae*:^a Body divided into a large oval, anteriorly pointed, cephalic portion containing all of the inner organs, and a caudal portion composed of the large acetabulum. Dorsum convex. Venter flat or excavate, provided with alternating longitudinal rows of large mammalike structures; of these, the papillæ near the middle of the rows (both longitudinal and transverse) are larger than those further from the middle. Pharynx with two lateral pouches; esophagus present. Genital pore ventromedian, cephalad of testicles. Testicles in anterior half of body; ovary near acetabulum; vitellaria rather well developed, lateral of ceca, extending about from esophageal bifurcation to ovary. Egg with operculum.

HABITAT: Large intestine of ruminants.

TYPE SPECIES.—*Homalogaster paloniæ* Poirier, 1883.

Comparatively little work has been done on this genus. In fact, Fischœder was obliged to leave open certain questions in regard to the generic characters. With the new form here described, the genus contains three species. An effort to obtain the two known species for

^a In a later paper we shall have occasion to discuss the subfamily position of this genus.

purpose of comparison has not been successful. The three species in question may be distinguished by the following key and diagnoses:

KEY TO THE SPECIES OF HOMALOGASTER.

1. Testicles placed obliquely; oral papillæ not reported; genital pore near equator of esophagus; type locality, Java.....*H. paloniæ* (p. 24).
2. Testicles, one caudad of the other; oral papillæ present; genital pore at equator of esophagus; type locality, Manila, P. I. .
H. philippinensis (p. 25).
3. Testicles on same transverse plane and divided into 2 large equal lobes, simulating 4 testicles; oral papillæ present; genital pore caudad of bifurcation of intestine; type locality, Tonkin....*H. poirieri* (p. 24).

In view of the comparatively restricted knowledge of this genus it seems advisable to give our present data regarding the two species already described before passing to a discussion of the new form.

HOMALOGASTER PALONIÆ Poirier, 1883.

(Figs. 27 to 28.)

1883: *Homalogaster paloniæ* Poirier, 1883, 74-76, pl. 2, figs. 1a-b (cecum of *Palonia frontalis*; from Java).—For bibliography see Stiles and Hassall, 1908, Index Cat., Trematoda, Bull. 37, Hyg. Lab., U. S. P. H. & M. H. S.

SPECIFIC DIAGNOSIS.—*Homalogaster* (p. 23): Something over 12 mm. long; form lanceolate; anterior cephalic portion very pointed, 11 mm. long by 6 mm. in maximum breadth; caudal portion much shorter, 3 mm. in maximum breadth. Genital pore on center of a papilla 1.5 mm. from very small terminal mouth. Venter with alternating longitudinal rows of large papillæ extending from about 3 mm. from oral margin to acetabulum. Acetabulum 2 mm. in diameter. Oral papillæ are not reported. Esophagus bifurcates 3 mm. from mouth; intestinal ceca extend to end of anterior portion of body.

Male organs: Testicles small, placed obliquely in cephalic half of body between ceca; one slightly to the right of the median line and 4 mm. from oral margin; the other 2 mm. further caudad, slightly to the left of the median line.

Female organs: Ovary 9.5 mm. from oral margin; vitellogene glands ramified, along the sides of body; uterus almost without coils. Excretory pore dorsal, 12 mm. from mouth; excretory vesicle with 2 lateral lobes.—Based on Poirier, 1883, 74-76.

HABITAT.—In cecum of "*Palonia frontalis*," from Java.

HOMALOGASTER POIRIERI Giard and Billet, 1892.

1892: *Homalogaster poirieri* Giard and Billet, 1892a, 615 (large intestine of cattle; Tonkin).—For bibliography see Stiles and Hassall, 1908, Index Cat., Trematoda, Bull. 37, Hyg. Lab., U. S. P. H. & M. H. S.

SPECIFIC DIAGNOSIS.—*Homalogaster* (p. 23): Size not given. Mouth with slender digitate papillæ. Genital pore caudad of intestinal bifurcation, on elevated papilla, visible to naked eye, a little behind pharynx. Acetabulum very large. Pharynx followed by 2 long simple ceca, which extend in almost a straight line to nearly the latitude of acetabulum (?? indicating absence of esophagus). Vasa deferentia (?efferentia) short, thick, tortuous; testicles lat-

eral (apparently meaning on same transverse plane), divided into 2 large equal lobes with sinuous margins, thus giving the appearance of 4 testicles occupying the corners of a square. Uterus with numerous slings, crowded together, and crowded with eggs in different stages of development; vitellaria lateral of intestinal ceca, with grapelike follicles; vitelline canals unite in posterior part of body, above (cephalad? or dorsad? of) acetabulum in the open space; ovary and shell gland near median line.—Based on Giard and Billet, 1892a, 615.

HABITAT.—Attached to mucosa of large intestine of cattle *Bos taurus?* or *B. taurus indicus?* at Tonkin.

Giard and Billet do not describe the form of the body, but state that it is different from that of *H. paloniæ*.

HOMALOGASTER PHILIPPINENSIS new species.

(Figs. 29 to 44.)

SPECIFIC DIAGNOSIS.—*Homalogaster* (p. 23): Body 7.5 to 9 mm. long by 4.5 to 5 mm. (or flattened to 7 mm.) broad, canoe shaped, cephalic extremity attenuated, caudal extremity rounded; when flattened, sides very convex; dorsum may show submedian longitudinal depressions. Genital pore 1 mm. from oral margin (about one-ninth to one-seventh of body length from mouth, and about at equator of esophagus) surrounded by depressed circular area bearing numerous small papillæ. Venter with alternating longitudinal rows of large papillæ extending from about 2 or 2.5 mm. from oral margin to acetabulum. Margins curved ventrally and are fairly sharp. Acetabulum about 2.5 by 2.7 to 3 mm. Esophagus extends to about one-fifth of body length from oral margin; intestinal ceca narrow, slightly tortuous, long, extending to acetabulum.

Male organs: Testicles lobate, in cephalic half of space between ceca; one caudad of the other; vesicula seminalis quite compactly coiled; pars muscularis distinctly but not highly developed; pars prostatica not prominent, may enlarge to quite a large diameter, thus resembling a "vesicula seminalis interna;" ductus ejaculatorius present; cirrus absent.

Female organs: Ovary and shell gland submedian, near end of one of the ceca, ovary cephalad of shell gland; vitellaria extend about from the bifurcation of esophagus to caudal plane of ovary; uterus with many coils, well developed, passes cephalad, dorsally of testicles, ventrally between vasa efferentia, ventrally of vas deferens, to pore: Laurer's canal opens dorsomedian at plane of termination of ceca. Genital papilla, when extruded, resembles human penis with glans; bears on its vertex a pore, from which runs the short ductus hermaphroditicus; when retracted the papilla resembles a partially inclosed cirrus pouch. Egg oval, operculated, with small knob at opposite pole; 125 to 139 μ by 67.5 to 86 μ .

Excretory pore dorsomedian about at equator of acetabulum.

HABITAT.—Cecum of *Bos* ———, at Manila, P. I. (type locality), and Phra-patoom, Siam.

TYPE.—U. S. P. H. & M. H. S. 9580 (mounted): Cotypes 9581 and 9960.

Source of material.—This species has been sent to us on two occasions by Dr. Paul G. Woolley. The first specimens (U. S. P. H. & M. H. S. Nos. 9580 and 9581) were collected in 1904 from the cecum of two calves (*Bos* ———) at Manila, P. I.; the second sending (U.

S. P. H. & M. H. S. No. 9960) was collected from the small intestine of a cow (*Bos*——), Sept. 28, 1906, at Phrapatoom, Siam. No difference has been noticed between the Philippine and the Siam specimens.

EXTERNAL CHARACTERS.

SIZE.—The specimens vary from 7.5 to 9.5 mm. in length, and from 4.5 to 5 mm. in maximum breadth; may flatten under pressure to 7 mm. broad.

COLOR.—Alcohol specimens are of a grayish buff color.

FORM.—In form the fixed specimens are canoe shaped with an attenuated oral and a rounded caudal extremity. The body is divisible into a posterior somewhat cylindrical portion, forming about one-fourth of the total length and an anterior somewhat lancet-shaped portion forming the remaining three-fourths. The posterior cylindrical portion is slightly flattened on its ventral aspect on which it bears the aperture of the acetabulum. The anterior three-fourths of the body is arched dorsally and excavated ventrally. The dorsum may show two longitudinal depressions just mediad of the intestinal ceca. In some of the specimens the lateral margins have curled ventrad in a scroll-like fashion, but it is possible to flatten the specimens without breaking the margins.

SURFACE.—The surface of the rounded posterior portion is smooth; that of the anterior portion is smooth dorsally (without spines or papillæ), but ventrally it is provided with two sets of dissimilar papillæ. One of these sets consists of numerous small papillæ covering a circumscribed, slightly depressed area around the base of the genital papilla: when the genital papilla is not extruded, the genital pore is still in the center of a mammalike elevation (fig. 41), which is much larger than the circumgenital papillæ just mentioned, and which is separated (in sagittal sections) about 1 mm. from the oral margin. The other set of papillæ consists of large and quite prominent elevations arranged in parallel longitudinal rows, extending from about 2 to 2.5 mm. from the oral margin to the rounded caudal portion of the body: laterally they do not attain quite the margins of the body: the papillæ near the median line are the largest, those near the lateral margins are smaller; further, the most anterior and the most posterior of the papillæ incline to a smaller size; in their arrangement the papillæ of any given longitudinal row are situated more or less regularly to correspond to the spaces between the papillæ of the next longitudinal row; as a result, they appear not only in longitudinal, but also in diagonal rows.

The venter and dorsum meet laterally in fairly sharp margins.

Genital pore.—As indicated above, the genital pore (figs. 31 and 41) is ventromedian about 1 mm. from the oral margin, namely,

about one-ninth to one-seventh of the length of the worm from the oral margin.

Acetabulum.—Measurements of the acetabulum taken from press preparations make it about 2.6 mm. in longitudinal diameter by 2.75 to 3 mm. in transverse diameter. The aperture is rather oval in outline, about 1.55 mm. in transverse by 1 mm. in longitudinal diameter.

INTERNAL ANATOMY.

DIGESTIVE TRACT.—The anterior bluntly pointed, attenuated extremity (cephalic cone) is pierced by the mouth, which is not provided with a true sucker. The oral margin is surrounded by a number of slender, digitate papillæ. The mouth gives entrance to a muscular pharynx; the lumen of the latter is at first more or less circular in transverse section, but it rapidly becomes flattened and crescentic with the convexity of the crescent dorsad. From the horns of this crescent spring two lateral pouches and the lumen of the pharynx terminates blindly as a narrow crescentic slit connecting the two lateral pouches. From the ventral aspect and a little above the blind, slitlike termination of the lumen of the pharynx, the esophagus rises and passes caudad, forming a ventral curve in its course. At its point of origin it communicates laterally with the lumen of the pharyngeal pouches, between and a little ventrad of which it lies. The relation of the esophagus to the pharyngeal pouches and blind slit will be seen by reference to figures 32 to 36.

At about one-fifth of the total body length from the oral margin of the worm, the esophagus divides into two simple cecal tubes which pass at first laterocaudad, then in slightly tortuous line caudad to about the level of the cephalic margin of the acetabulum. Just before reaching their termination they shift a little toward the median line. One tube may be somewhat longer, and so terminate at a slightly lower level (more distal) than the other. In their course they are wavy and are separated by a distance about equal to that which separates them from the corresponding lateral margins of the worm. The pharynx, pharyngeal pouches, and esophagus are lined by a cuticle in anatomical continuation with that of the surface. At the esophageal fork this lining abruptly ceases, the intestinal tubes being lined by a nucleated epithelium.

GENITAL SYSTEM.—*Male organs*: The two testicles lie in the cephalic half of the area included between the intestinal ceca, and are somewhat nearer the dorsal than the ventral surface. (Fig. 31.) One is directly caudad of the other, the two being separated by a narrow interval which is partially occupied by some coils of the uterus. The anterior testicle is somewhat smaller than the posterior and in press preparations their outlines are sinuous, but sections

show them to be so markedly indented as to amount to a very distinct lobation. A vas efferens rises from each testicle; that from the posterior testicle appears to spring from the right dorsolateral aspect and passes cephalad between the anterior testicle and the right intestinal cecum; that from the anterior testicle springs from near the left margin of its cephalic aspect, and passing cephalad, it unites with its fellow beneath the esophageal fork to form the vas deferens. In their course they both become dilated and contain masses of spermatozoa. The vas deferens winds its way cephalo-ventrad in close relation with the coils of the uterus, and opens to the exterior by a pore common with the opening of the female duct. During its course, several distinct portions may be more or less clearly recognized, but not with equal ease in all specimens. Most favorable for interpretation seem to be specimens with fully extruded, mushroom-like genital papilla. The centripetal portion of the vas represents the vesicula seminalis, which is coiled up into a more or less compact mass and which, when filled with spermatozoa, may present quite a large lumen. Next, centrifugally, comes the pars muscularis; this is provided with distinct muscular fibers, but is not developed to such an extent as seen in certain other amphistomes, for instance in *Paramphistomum calicophorum*. The duct then becomes rather suddenly enlarged, is surrounded by a less prominent layer of muscular tissue, is provided with a considerable number of cells resembling those found in the pars prostatica of other amphistomes, but much less striking in their development and arrangement, so that were it not for analogy, one would probably hesitate to interpret them as prostatic cells; the lumen of this portion may contain large masses of spermatozoa, so that in general effect the structure reminds the observer of the vesicula seminalis interna described for certain species possessing a cirrus pouch. As this portion narrows centrifugally, the prostatic-like cells at first seem to increase, then to decrease in number, until they finally disappear. Then follows a portion of the male canal, of narrower diameter, but still remaining larger than the corresponding portion of the female duct, and apparently devoid of both muscles and prostatic cells; this apparently represents the ductus ejaculatorius and opens into such a short ductus hermaphroditicus that the latter almost represents only a pore common to the male and the female canals.

Female organs: Caudad of the testicles, the interspace between the intestinal ceca contains coils of the uterus, the ovary, and the shell gland. The ovary is a somewhat globular body, very much smaller than either testicle; it is placed a little to the left of the median line, near the end of one of the intestinal ceca, and somewhat above (cephalad of) the anterior margin of the acetabulum. From its dorsoinferior (caudal) aspect springs the oviduct which curves cau-

dad to enter the shell gland; the latter is immediately beneath (caudad of) the ovary. In the shell gland the oviduct unites with the vitellobduct. Just before entering the shell gland the oviduct receives Laurer's canal, from which point the latter passes centrodorsad to open in the median line on the dorsal surface about on the transverse plane of the termination of the intestinal ceca.

From the ventral aspect of the shell gland and appearing like a continuation of a spindle shaped dilatation (ootyp) of the canal formed by the vitello- and oviduct there emerges the uterus which at once forms numerous coils. In its course cephalad the uterus passes dorsad of the testicles; a loop of it is tucked into the narrow interspace between the two testicles. Cephalad of the anterior testicle it winds its way ventrad to the genital pore, passing caudad of the arch formed by the union of the two vasa efferentia, and remaining in close relation to the ventral aspect of the male canal.

In its course the uterus contains numerous eggs and near its point of emergence from the shell gland some of the eggs are intermingled with a mass of spermatozoa.

The vitellogene glands lie in the lateral areas, beginning at the level of the esophageal fork and extending to a plane slightly caudad of the ovary. These vitellaria are composed of scattered irregularly globular follicles confined to the inner half of these areas. Somewhat above (cephalad of) the level of the ovary the main right and left vitellobducts originate and pass mediad and slightly caudad in front (ventrally) of the intestinal tubes, to unite and form a common duct which curves around the caudal aspect of the shell gland, which it pierces to unite with the oviduct.

Genital pore.—The genital pore is situated at a point about midway from the oral margin to the esophageal fork, namely, about one-ninth to one-seventh of the body length from the oral margin. It is at the summit of a very peculiar genital papilla, which is easily subject to misinterpretation because of its different appearance in different specimens, due to the greater or less condition of extrusion or retraction. Sections with fully extruded papilla (figs. 31 and 37) form the best basis for study. When fully extruded, this papilla resembles somewhat the human penis with its glans. There is a distinctly swollen terminal portion 0.4 mm. in diameter, and 0.2 mm. long; this is followed centripetally by a constricted peduncle about 0.25 mm. in diameter and 0.15 mm. in length; its surface is smooth. At its vertex is situated the genital pore (opening of the ductus hermaphroditicus) from which the genital canals lead centripetally in quite a direct course. The parenchyma of this papilla is composed chiefly of very striking, large cells, provided with disproportionately small nuclei.

When the bulbous portion of this papilla is retracted (fig. 41) the large parenchymatic cells assume a rather deep position and might easily be interpreted as glandular cells; further, the retracting muscles arrange themselves in such a way as to give to the structure a remarkable resemblance to a partially formed cirrus pouch such as is described by Looss (1896b), p. 28, fig. 14) for *Gastrodiscus ægyptiacus*.

EGG.—The uterine egg (fig. 44) is oval in form and white in color by reflected light under a low power. With a slightly higher magnification by transmitted light it is seen to contain a dark, granular mass, with a circular area, somewhat eccentrically placed; this appears almost free of these dark granules; with still higher magnification it is noted that the eggshell is rather thin in the equatorial zone, but slightly thicker at the poles. At one pole the shell is provided with a small operculum; at the other pole, which at first appears to be somewhat less blunt, but which in reality is slightly more so, there is a small knob. The contents of the egg are inclosed in a membrane which with a high magnification does not appear to be in direct contact with the shell. The average measurements of 27 eggs were $132.2\ \mu$ in length, by $74.5\ \mu$ in width; the extremes were $125\ \mu$ and $139\ \mu$ in length and $67.5\ \mu$ and $86\ \mu$ in breadth.

EXCRETORY SYSTEM.—The excretory vesicle is situated dorsad of the acetabulum in the caudal rounded portion of the body. A little caudad of the cecal ends of the intestinal tubes it receives two large lateral excretory canals, which can be traced some distance cephalad. From the vesicle a canal passes caudodorsad to open in the median line of the dorsum about at the level of the center of the acetabulum. The canal is lined by a cuticle in anatomical continuation with that of the surface.

AGAMODISTOMUM NANUS new species.

(Figs. 45 to 66.)

SPECIFIC DIAGNOSIS.—*Agamodistomum*: Minute distomes 0.35 to 0.412 mm. long, 0.246 to 0.27 mm. broad, 0.147 mm. thick; oval, venter flat, dorsum convex, cephalic and caudal margins bluntly rounded, lateral margins convex. Apparently without spines. Oral sucker subterminal, $32\ \mu$. Acetabulum slightly larger, 41 to $46\ \mu$, in equatorial plane of body. Genital pore median, about midway between acetabulum and caudal margin (compare *Clinostomum*). Pharynx apparently present; postpharyngeal esophagus very short or wanting; bifurcation $92\ \mu$ from center of mouth; ceca fusiform extending beyond genital pore, may extend nearly to caudal margin. Primordium of cirrus pouch (?) large and prominent, extending nearly straight dorsad, between ceca; one genital primordium dorsocaudad of this, another caudad, near caudal margin. Excretory pore dorsosubterminal; primordium of excretory vesicle present; at least two excretory canals present.

HABITAT.—Encysted in pectoral muscle of African partridge (*Francolinus subtorquatus*) at Benguella, West Africa.

TYPE.—U. S. P. H. & M. H. S., No. 9834, two worms mounted in toto on one slide; cotypes in sections. Alcohol material in U. S. National Museum and in collection of American Society of Tropical Medicine.

SOURCE OF MATERIAL.—A bottle of material collected by Doctor Wellman in Benguela, West Africa, and sent to us for determination, contained portions of the “pectoral muscles of a partridge, *Francolinus subtorquatus*.” The muscles are beset with a number of small cysts, about 1.0 mm. long, which bear a superficial resemblance to the sarcosporidia occasionally found in birds. Upon careful teasing, as well as upon section, the cysts are seen to contain minute agamic distomes, apparently one parasite in each cyst.

SIGNIFICANCE OF INFECTION FROM STANDPOINT OF FOOD INSPECTION.—As will be seen from the following account of the anatomy, this parasite does not correspond to any species thus far known to occur in man. Whether it would develop in man further if taken in the food can not be stated at present. From the standpoint of food inspection the infection would for the present be similar to a severe infection with sarcosporidia, namely, an infection not dangerous to man, but one which so altered the condition of the meat as to lead to its condemnation.

At the present moment this infection is not known for partridges in the United States.

EXTERNAL CHARACTERS.

MEASUREMENTS.—The parasites vary in size, attaining 0.352 to 0.416 mm. in length by 0.246 to 0.272 mm. in transverse diameter, and 0.147 mm. in dorsoventral diameter.

COLOR.—The unstained alcoholic specimens are of a yellowish gray color, with two longitudinal lighter fusiform spots, due to the intestinal ceca. In transmitted light the worm has the appearance of a small amount of foam, this foamy appearance being due to the cellular structure.

FORM.—The worms are oval in outline, with flat venter and convex dorsum; the oral (cephalic) and aboral (caudal) margins are bluntly rounded and of nearly the same form; the lateral longitudinal margins are convex.

SURFACE.—No spines could be distinguished on the cuticle.

ORAL SUCKER.—The oral sucker is ventrosubterminal, $32.2\ \mu$ in diameter, and directed from dorsocaudal to ventrocephalad.

VENTRAL ACETABULUM.—The ventral acetabulum may be exactly in the equatorial plane, or slightly caudad of equator; it is 41 to $46\ \mu$ in diameter, with a circular aperture of $13.8\ \mu$; on section it is $38.8\ \mu$ in dorsoventral diameter.

GENITAL PORE.—Halfway between the acetabulum and the caudal

margin, or slightly nearer the acetabulum, is situated the genital pore, which is rather prominent and is surrounded by darkly staining tissue.

EXCRETORY PORE.—The excretory pore is dorsoterminal.

INTERNAL ANATOMY.

DIGESTIVE TRACT.—The digestive tract is the most prominently developed organ system in this stage of development. Through its entire extent its lumen is entirely occupied by a gelatinous or (?) granular mass, in which cellular structure is not distinguishable.

Extending dorsocaudad from the oral sucker the esophagus may be distinguished; at the point where the esophagus leaves this sucker there is a bulbous structure, the wall of which is composed of a single row of nucleated cells; the impression gained is that this is a pharynx in process of development. The bifurcation (into two intestinal ceca) occurs about $56\ \mu$ caudad of the center of the oral sucker, so that the postpharyngeal portion of the esophagus, though distinct, is exceedingly short. In their course caudad the intestinal ceca diverge from the median line and at first, for a distance of about $92\ \mu$, increase gradually in diameter; then they increase rapidly in diameter, but upon nearing the region of the genital pore they again decrease, each ending in a rather sharp point somewhat caudad of the pore; in some cases they extend to a plane about halfway between the genital pore and the caudal end of the body. In transverse section the ceca are nearly circular, but the dorsoventral diameter is slightly greater than the transverse diameter (88 to $76\ \mu$ in one case). Thus the ceca represent the two fusiform spots seen in the unstained specimen.

In the wall of the ceca may be seen a few very small nuclei.

The ceca are somewhat nearer the dorsum than the venter.

GENITAL SYSTEM.—The primordium of the genital system is present, but the arrangement of the sexual glands can not be analyzed. On section a distinct canal is seen to run almost directly dorsad, but slightly caudad, between the intestinal ceca; in one section this canal had the appearance of dividing into two canals, a male and a female duct, but this point can not be asserted without reserve. The canal is surrounded by a mass of darkly staining tissue, about $69\ \mu$ long (i. e., dorsoventrad in reference to the worm) by $46\ \mu$ broad (cephalocaudad in reference to the worm); the entire structure gives the impression of being a cirrus pouch in course of development.

Dorsocaudad of this structure is a second, much smaller, darkly staining mass of cells, and still further caudad, near the caudal margin of the worm, is still a third darkly staining mass.

EXCRETORY SYSTEM.—At the caudal end, slightly dorsad, is an invagination, surrounded by a row of cells, and apparently representing the excretory vesicle. Excretory canals are also visible on section.

SYSTEMATIC POSITION.—From the foregoing account it will be seen that this worm is an agamic distome with genital pore about midway between the acetabulum and the caudal margin (compare for instance *Clinostomum*).

A REEXAMINATION OF THE ORIGINAL SPECIMEN OF *TÆNIA SAGINATA ABIETINA* (WEINLAND, 1858).

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and

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Since 1858 works on zoology and on the practice of medicine make mention of a tapeworm which Weinland described as *Tænia solium* var. *abietina*. Opinions of authors have differed in regard to the exact status of the parasite in question, some writers considering that it represented a distinct species, others that it was a variety of *Tænia solium*, and still others, that it was a peculiar specimen of *Tænia saginata*.

In a recent visit to Boston one of us found the original specimen, or rather all that seems to be left of it, in the Warren Anatomical Museum, and through the courtesy of Doctor Whitney, curator of the museum, we have been able to reexamine this interesting material. In connection with a brief account of our rather unsatisfactory results it may be well to give a review of the history of the parasite in question, which now bears the U. S. P. H. & M. H. S. No. 9713, but which will be returned to the Warren Museum.

SYNONYMY.

- 1858: *Tænia solium* var. *abietina* Weinland, 1858, 43-45, 84; 1861, 4-5, 12-14, pl. 5, figs. 18-20.
— as variety of *Tænia mediocanellata* in Leuckart, 1863, 289, fig. 80 (based upon reexamination of original material).—Diesing, 1864a, 369.
— as variety of *T. saginata* in Leuckart, 1880, 605-606, fig. 272.—Blanchard, 1886a, 362-363, fig. 238.
— as syn. of *T. saginata* in Braun, 1903, 3 ed., 224.
— as possible syn. of *T. confusa* in Braun, 1903, 3 ed., 229.
— as doubtful syn. of *T. saginata* in Stiles, 1898a, 72.
1864: *Tænia mediocanellata* var. *abietina* (Weinland, 1858) Diesing, 1864a, 369.
1873: *Tænia abietina* (Weinland, 1858) Davaine, 1873a, 572; 1877a, 1, 909, 910, 920.—Cobbold, 18—, —. —Swart. 1862. 18.
— as doubtful syn. of *T. saginata* in Stiles, 1898a, 72.

- 1880: *Tænia saginata* var. *abietina* (Weinland, 1858) Leuckart, 1880, 605-606 fig. 272.—Stiles, 1906, June, 31-32, figs. 35-38.
 1885: *Tænia abietina* (Weinland, 1858) Guzzardi Osmundo, 1885a, 580.

HISTORICAL REVIEW: Weinland's (1858, 43-45, 84) original account of this species is as follows:

[p. 43] § 63. Under this name [*Tænia solium* var. *abietina*] I will introduce a specimen of tapeworm which comes from a Chippewa Indian, at the Sault Ste. Marie, Lake Superior; it was obtained there by Professor Agassiz during his famous trip to that lake. The specimen consists of a chain [p. 44] of several feet in length, from the mature part of the worm. The head, neck, and the whole anterior half are wanting.

The most striking thing in this worm is its extreme narrowness and meagerness, while *Tænia mediocanellata*, which it resembles in the configuration of the uterus, is very broad and thick, according to Kuechenmeister. A figure of this worm, of its uterus and eggs, we intend to publish in our work on the parasites of man.

All the joints which are preserved are very thin, nearly transparent, and equally narrow, their transverse diameter being about 4 mm., and the longitudinal about 12 mm. The genital openings are very small, and without external lips; this may be owing to the very mature age of the joints in question. There is no pigment in either vagina or spermatic duct. The uterus is more regular than either in *Tænia solium* or in *Tænia mediocanellata*, yet it more resembles the latter. The middle trunk of the uterus is quite straight; the branches, about 30 in number, start from the main stem, either at right angles or at an angle of about 45°. These branches are always quite parallel, and are generally straight; but whenever they are bent, all make the same angle; they are never arborescently divided, nor furcated at the ends, with the exception of the foremost and the hindmost in each joint, which run, the former forwards, the latter backwards, both being forked and crooked. The eggs, which are extremely plenty in these joints, and which show the whole configuration of the uterus in a yellowish tint to the naked eye, are 0.033 mm. long, and 0.030 mm. broad; they are protected, first, by an outside shell (chorion) which is 0.003 mm. thick, dark in its outer layers, transparent, yellowish inwards; then follows a second shell (yolk membrane), 0.0006 mm. thick, entirely transparent. In the cavity of the egg lies the embryo, occupying about two-thirds of it, and measuring only 0.016 mm. We saw other eggs, unripe, and with one eggshell only, but very rarely.

We consider this worm merely as a variety of *Tænia solium*, and we called it varietas *abietina*, from abies, a pine tree, which the configuration of its uterus resembles.

We hope soon to get more information concerning this Indian tapeworm from our western and Canadian medical friends.

[p. 84] 2b. *Tænia solium*, L. Varietas *abietina* Weinland.

Obtained by Prof. L. Agassiz from a North American (Chippewa) Indian, at Lake Superior. The specimen is preserved in the Zoological Museum, Cambridge, Mass.

Later, Weinland (1861, 4-5, 12-14, pl. 5, figs. 18-20) reverts to this subject; his account of the parasite is practically a translation of the paragraph quoted above, but he adds that the worm was collected in 1850; the eggs measure 33 by 30 to 33 μ ; the chorion is dark brown externally, lighter internally. Weinland was unable to recognize any further details.

So far as we have been able to find, Leuckart (1863, 289, fig. 80) is the only other helminthologist who has examined this parasite; he reexamined part of Weinland's original material and concluded that it represented a variety of *Tænia mediocanellata*; in his later work (1880, 605-606, fig. 272) he refers to it as *Tænia saginata* var. *abietina*. Not altogether in harmony with Weinland's description, Leuckart's figure of the uterus shows a number of the lateral pouches of the uterus as branched; he gives about 40 branches each side.

All later references to the parasite are either based directly upon the conclusions drawn by Weinland and by Leuckart, or are opinions expressed on basis of the data given by these two authors.

Diesing (1864a, 369) considers *abietina* a variety of *T. saginata*.

Blanchard (1886a, 362-363, fig. 238) considers it as "a simple variety of *T. saginata*."

Braun (1903, 3 ed., 224) thinks it a "*T. saginata*, with uterine branches somewhat more thickly set;" he also suggests (p. 229) that it may possibly be identical with *T. confusa* Ward.

Stiles (1906, June, 31-32, figs. 35-38) recognized the form provisionally as a subspecies of *Tænia saginata*. He republished Weinland's and Leuckart's illustrations of the worm.

REEXAMINATION OF ORIGINAL MATERIAL.—*Segments*: The specimen consists of only 5 gravid segments, which are in very poor state of preservation. At the time it came into our hands it was completely dried out and, naturally, brittle. It was soaked in very weak alcohol, which was gradually increased in strength; then it was transferred to alcohol glycerin, the alcohol was allowed to evaporate, and the worm eventually mounted in glycerin-jelly. Because of its having been dried a detailed study of the anatomy is of course excluded.

The segments measure as follows:

About 12 mm. long by about 2 mm. broad.

About 12 mm. long by about 2 to 3 mm. broad.

About 12 mm. long by about 2 to 2.5 mm. broad.

About 11 mm. long by about 2.5 mm. broad.

About 11 mm. long by about 2.5 to 3.5 mm. broad.

Genital pores.—The genital pores are irregularly alternate and are caudad of the equator of the segment—more exactly, about five-eighths from the anterior margin.

Uterus.—No remnants of the genital glands can be seen, and it is scarcely possible to count the lateral branches of the uterus; these are, however, numerous.

Eggs.—The uterus is crowded with eggs, which vary in size from 31 to 37.5 by 30 to 33.9 μ . An average of 31 embryophores gave 36.27 by 32.09 μ ; the usual length (21 cases) was 37.5, the most frequent breadth (11 cases) 31.9 μ .

We have obtained or compiled the following measurements for the embryophores of the tæniae of man:

- T. solium*, almost round, 31 to 36 μ .
- T. saginata*, ovoid, 35 to 40 by 20 to 30 μ .
- T. confusa*, 39 by 30 μ .
- T. africana*, 31 to 39 by 33.8 μ .
- T. abietina*, 31 to 37.5 by 30 to 33.9 μ .

From these measurements it will be seen that the eggs of *T. abietina* do not agree exactly with any of the species mentioned.

Calcareous corpuscles.—The calcareous corpuscles are exceedingly numerous, round to oval in shape, varying considerably in size, and attaining 17.6 μ in diameter. Comparing these with the measurements given for other forms, we have the following table:

- Tænia solium*, up to 12 μ , sparse.
- T. saginata*, up to 18 μ , plentiful.
- T. confusa*, up to 11 μ , sparse.
- T. africana*, 10.4 by 16.9 μ , sparse.
- T. hominis*, very numerous.
- T. abietina*, up to 17.6 μ , very numerous.

The data given above are scarcely sufficient to enable one to express a positive opinion upon the systematic value of *T. abietina*. They seem, however, to be too meager to fully justify its separation from *T. saginata*, and almost too much to fully justify viewing it as a typical *T. saginata*.

Were these fragments sent to us for determination, without knowledge of their origin, we should conclude that they were probably a dwarfed specimen of *Tænia saginata*.

In order to obtain opinions from other persons, we have submitted the fragments to Hassall, Ransom, and Ward, requesting them to come to a conclusion before they inquired into the history of the material. Ward was disinclined to consider the segments as belonging to *T. saginata*, while Hassall and Ransom were both inclined to consider them as belonging to this species.

Under existing circumstances no exact determination can be accepted as final, but four of the five helminthologists who have re-examined the material incline to the *saginata* determination, while one is disinclined.

That the material does not agree exactly with the typical *Tænia saginata*, as we find it in this country, must be admitted, but we do not feel justified at present in recognizing it as of full specific rank.

Under existing circumstances perhaps the best solution of the matter is to accept it as a doubtful subspecies, *Tænia saginata abietina* and call attention to the worm in the hope that some new specimens may be collected which will permit of a definite opinion. We must look to the physicians in the North and West, particularly to those near Sault Ste. Marie, to find such material.

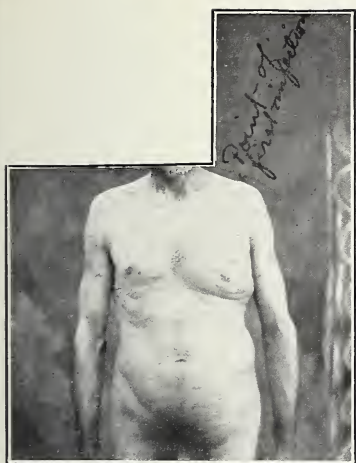


FIG. 1.

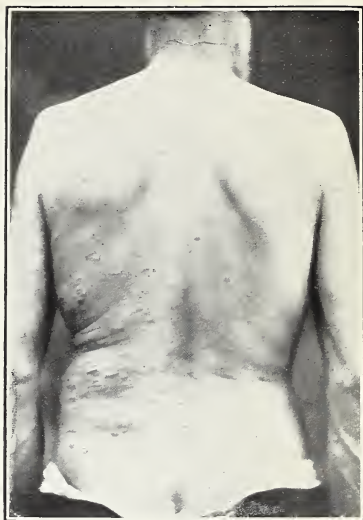


FIG. 2.

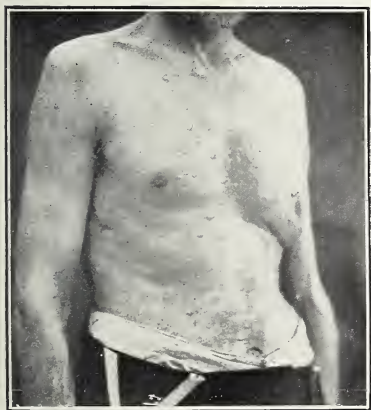


FIG. 3.

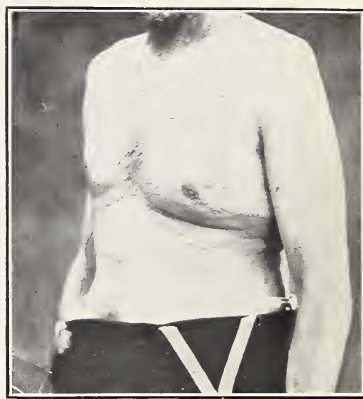


FIG. 4.

FIGS. 1-4.—Four photographs of Gates's patient in Florida, showing acne-like condition and enlarged breasts, due to infection with *Sparganium proliferum*. Original; photos kindly furnished by Doctor Gates.



FIG. 5.—*Sparganum proliferum*, in part in a cyst. Original. $\times 10$.



FIG. 6.—*Sparganium proliferum*, escaped from the cyst. Original. $\times 10$.



L. H. MILDEN, DEL.

FIG. 7.

FIGS. 7-15.—Nine specimens of *Sparganium proliferum*, showing various forms, buds, and supernumerary heads. Original. $\times 10$.





L.H. MILDER, DEL.

FIG. 8.



L.H. MILDER, DEL.

FIG. 9.

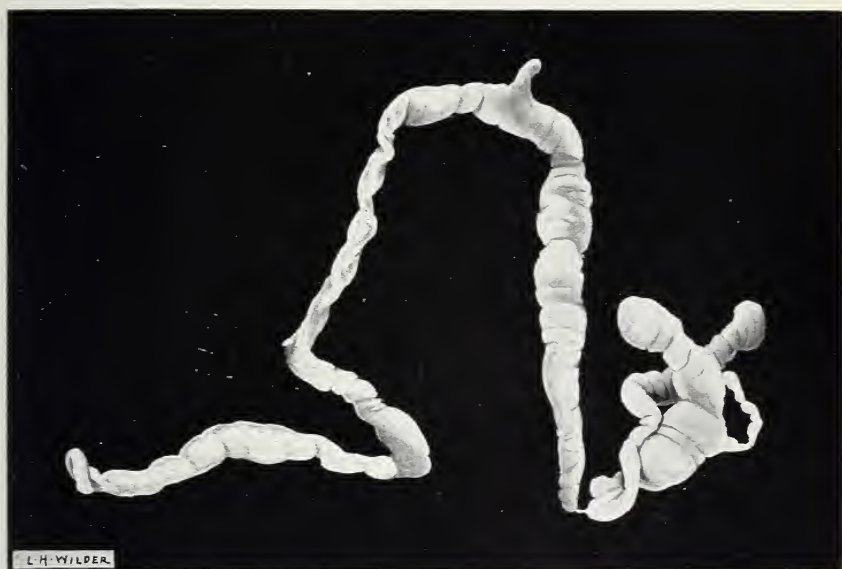
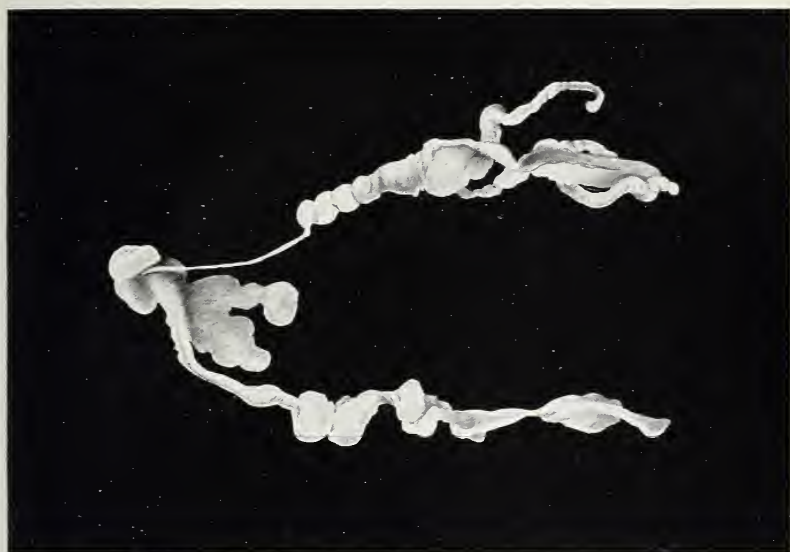


FIG. 10.

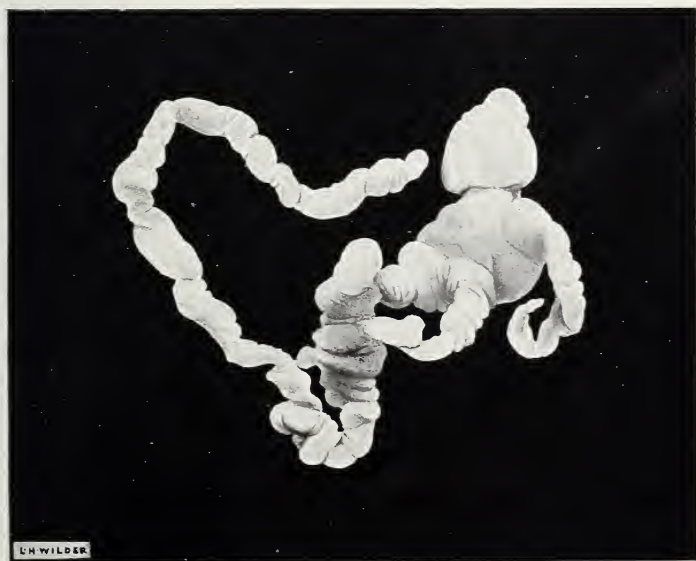


FIG. 11.



L.H. WILDER, DEL.

FIG. 12.



L.H. WILDER

FIG. 13.





FIG. 14.



FIG. 15.





FIG. 16.—Section through a cyst (a), with the escaped *Sparganium proliferum* (b); x, reserve food particle. Original.

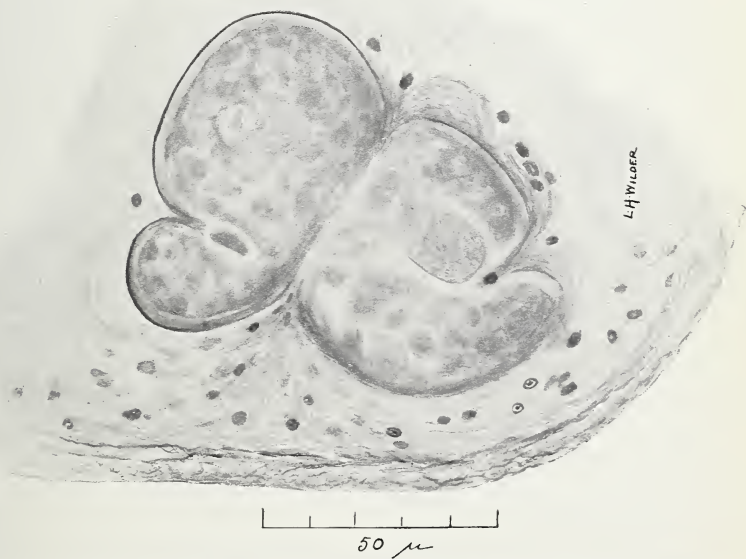


FIG. 17.—Section through a reserve food particle. (See x, fig. 16.) Enlarged. Original.



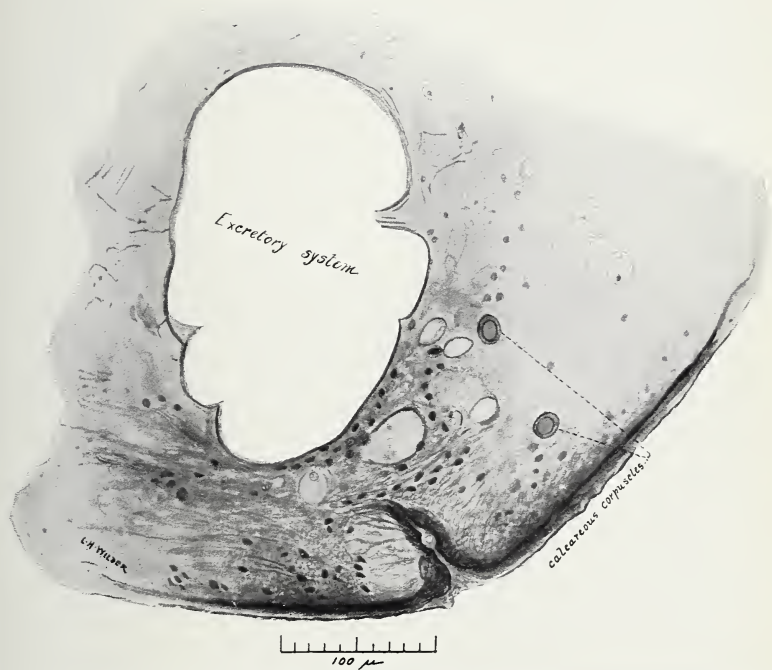


FIG. 18.—Section showing large excretory canal, smaller canals, calcareous corpuscles, and a pore.
Enlarged. Original.

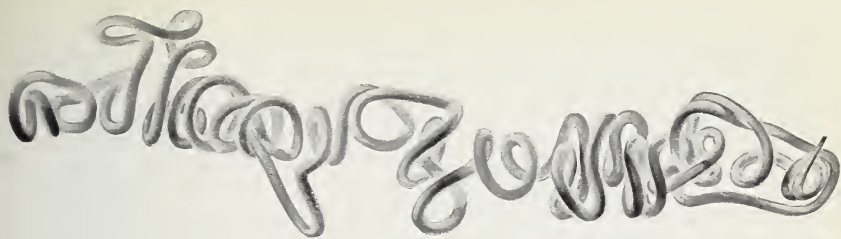


FIG. 21.



FIG. 19.



FIG. 20.

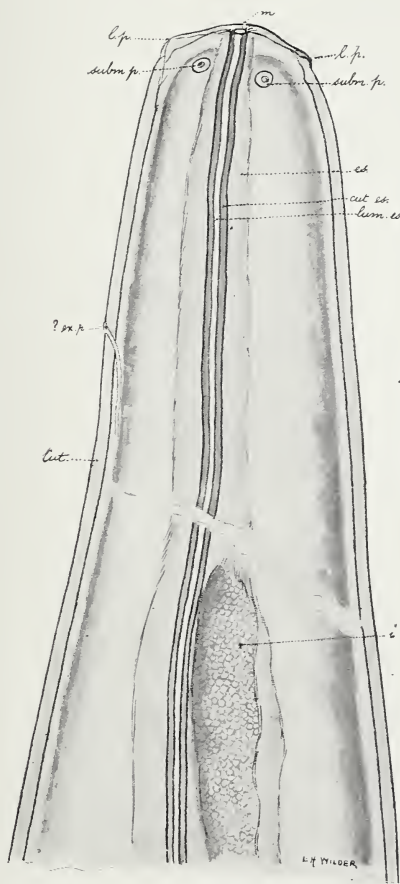


FIG. 22.

FIG. 19.—Head of *Filaria restiformis*. Enlarged. Leidy's original figure.

FIG. 20.—Tail of *F. restiformis*. Enlarged. Leidy's original figure.

FIG. 21.—Figure of type specimen of *F. restiformis*. Natural size. Original.

FIG. 22.—Enlarged view of head of same; the body is surrounded by a distinct cuticle (*cut.*); cuticle of esophagus (*cut. es.*); esophagus (*es.*); blind intestinal sac (*i.*); lumen of esophagus (*lum. es.*); a pair of lateral papillae (*l. p.*) and two submedian papillae (*subm. p.*) are visible; the mouth is terminal (*m.*). Original.





FIG. 23.

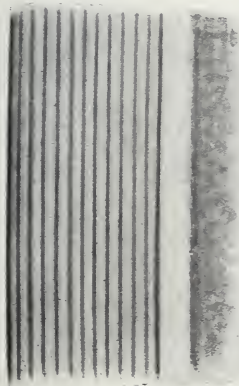


FIG. 24.



FIG. 25.

FIG. 23.—Tail of same; the dark body in the center represents the intestine. Enlarged. Original.
 FIG. 24.—Optical section of cuticle showing layers. Greatly enlarged. Original.
 FIG. 25.—Diagonal system of fibers of cuticle. Greatly enlarged. Original.



FIG. 26.—Transverse section of type specimen, showing 6 muscular fields, separated by 6 longitudinal lines; the central mass is the fat body. Greatly enlarged. Original.



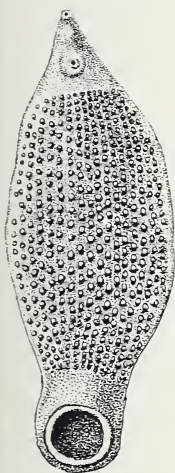


FIG. 27.



FIG. 29.

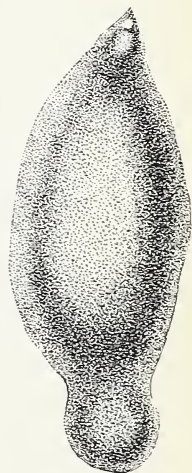


FIG. 28.

FIGS. 27-28.—*Homalogaster paloniæ*. (After Poirier 1883, figs. 1a-b.)

FIG. 29.—*Homalogaster philippinensis*, ventral view. Enlarged. Original.

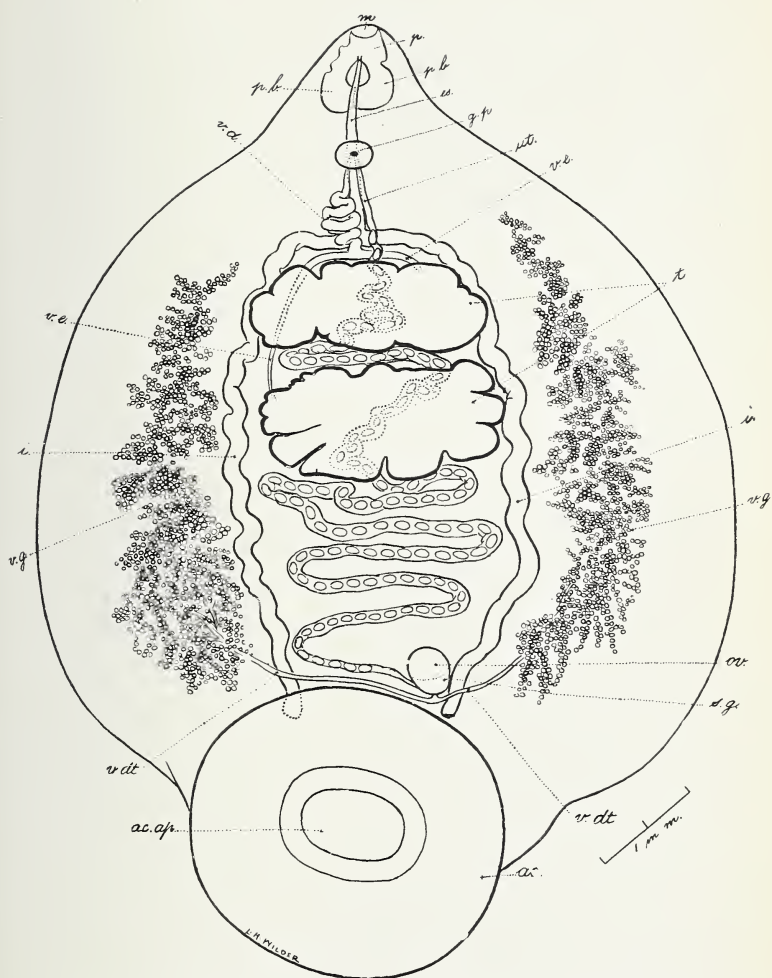


FIG. 30.—Press preparation of *Homalogaster philippinensis*, showing internal anatomy: ac., acetabulum; ac. ap., aperture of acetabulum; es., esophagus; g. p., genital pore; i., intestine; m., mouth; ov., ovary; p., pharynx; ph. b., pharyngeal pouch; s. g., shell gland; t., testis; ut., uterus; v. d., vas deferens, v. e., vas efferens; v. g., vitellogene gland; v. dt., transverse vitello-duct. Enlarged. Original.



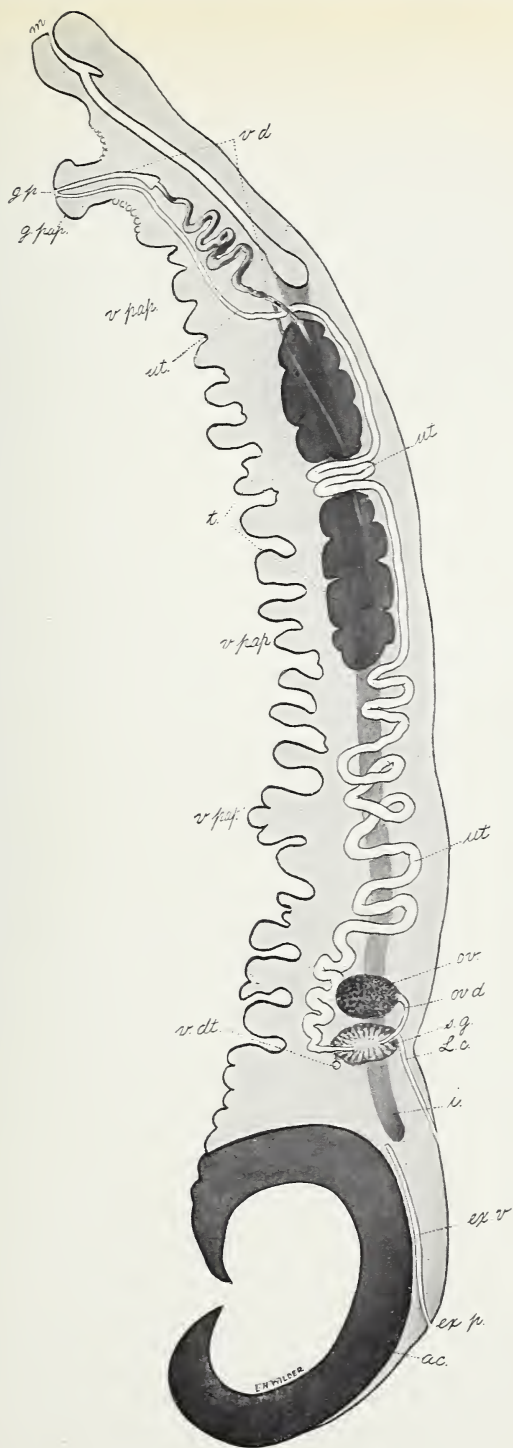


FIG. 31.—Optical, sagittal section showing internal anatomy: *ex. p.*, excretory pore; *ex. v.*, excretory vesicle; *g. pap.*, genital papilla; *L. c.*, Laurer's canal; *ov. d.*, oviduct; *v. p.*, ventral papillæ. Remainder of lettering as in figure 30. Semidiagrammatic. Enlarged. Original.



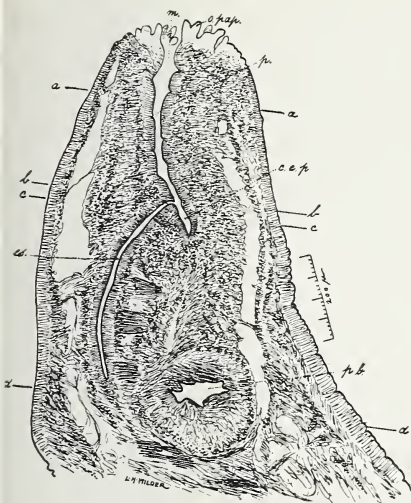


FIG. 32.

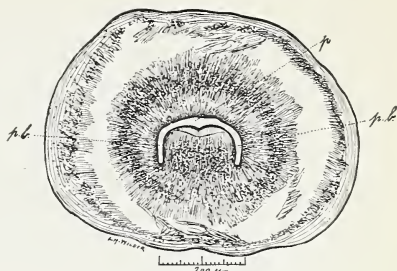


FIG. 34.

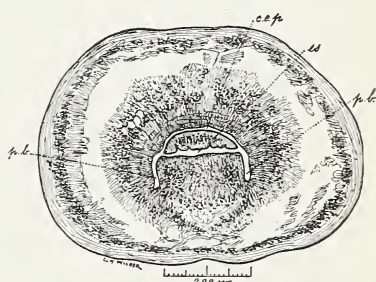


FIG. 35.

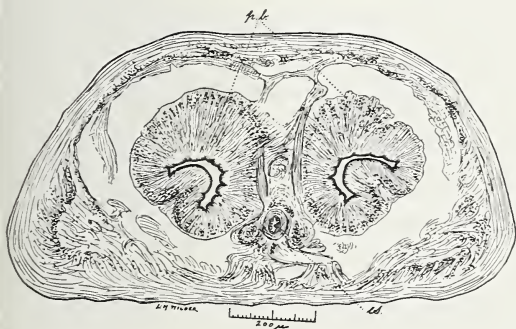


FIG. 36.



FIG. 33.

FIG. 32.—Sagittal section through oral extremity: *c. e. p.*, cecal extremity of pharynx; *es.*, esophagus; *m.*, mouth; *o. pap.*, oral papillae; *p.*, lumen of pharynx; *p. b.*, lumen of pharyngeal pouch: *a-a*, *b-b*, *c-c*, *d-d*, planes of section. Enlarged. Original.

FIG. 33.—Transverse section through plane *a-a* of figure 32, showing pharyngeal lumen (*p.*). Enlarged. Original.

FIG. 34.—Transverse section through plane *b-b* of figure 32, showing pharyngeal lumen (*p.*) and aperture of pharyngeal pouches (*p. b.*). Enlarged. Original.

FIG. 35.—Transverse section through plane *c-c* of figure 32, showing cecal extremity of pharynx (*c. e. p.*); beginning of esophagus (*es.*) and aperture of pharyngeal pouches (*p. b.*). Enlarged. Original.

FIG. 36.—Transverse section through plane *d-d* of figure 32, showing relative positions of esophagus (*es.*) and pharyngeal pouches (*p. b.*). Enlarged. Original.

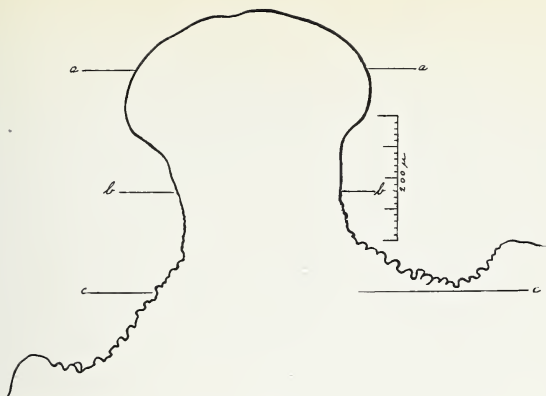


FIG. 37.

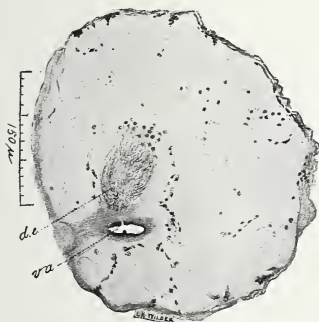


FIG. 38.

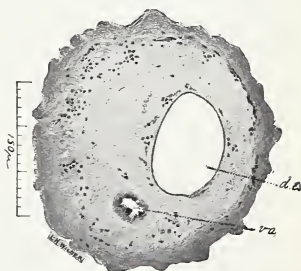


FIG. 39.

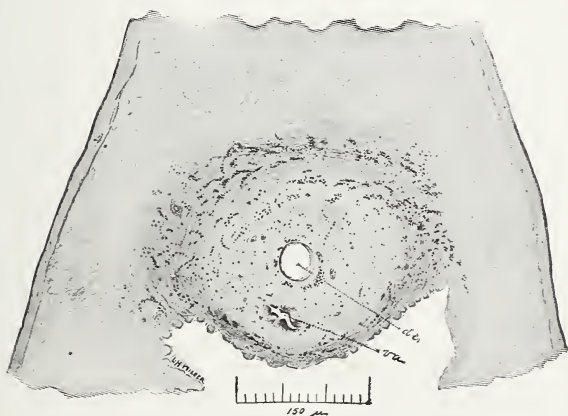


FIG. 40.

FIG. 37.—Outline of genital papilla in sagittal section, showing also the papillae around the base; *a-a*, *b-b*, *c-c*, planes of section. Enlarged. Original.

FIG. 38.—Section through genital papilla in plane *a-a*, of figure 37. The section is not quite at right angles to the axis of this papilla. It shows the metraterm (*va.*) and the ductus ejaculatorius (*d.e.*) filled with spermatozoa. Enlarged. Original.

FIG. 39.—Section through genital papilla in plane *b-b* of figure 37. Lettering as figure in 38. Enlarged. Original.

FIG. 40.—Section through genital papilla in plane *c-c* of figure 37. Lettering as in figure 38. Enlarged. Original.



FIG. 41.—Transverse section showing retracted genital papilla (*g. pap.*), esophagus (*es.*) and the papillae around base of genital papilla. Enlarged. Original.

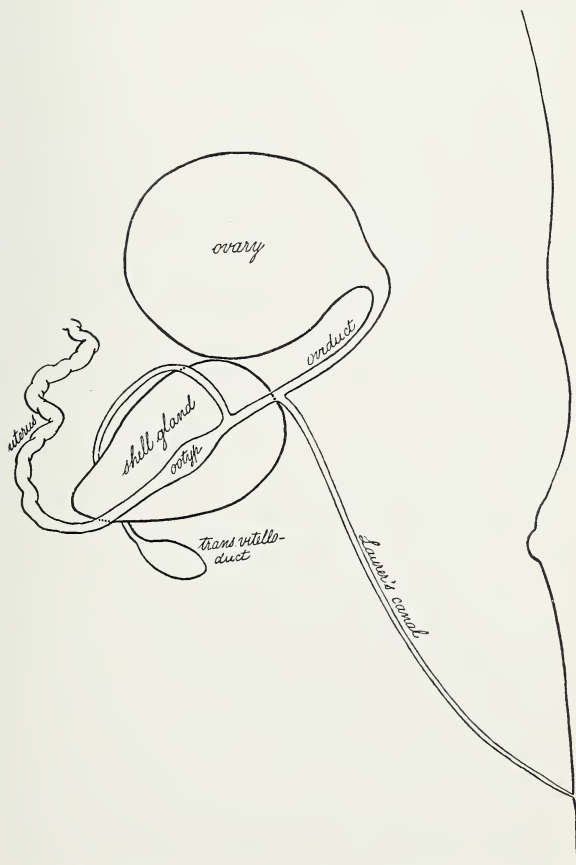


FIG. 42.—Diagram showing relation of ovary, shell gland, oviduct, ootyp, uterus, and Laurer's canal in sagittal plane. Original.

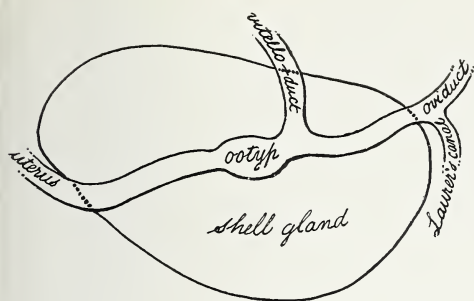


FIG. 43.



FIG. 44.

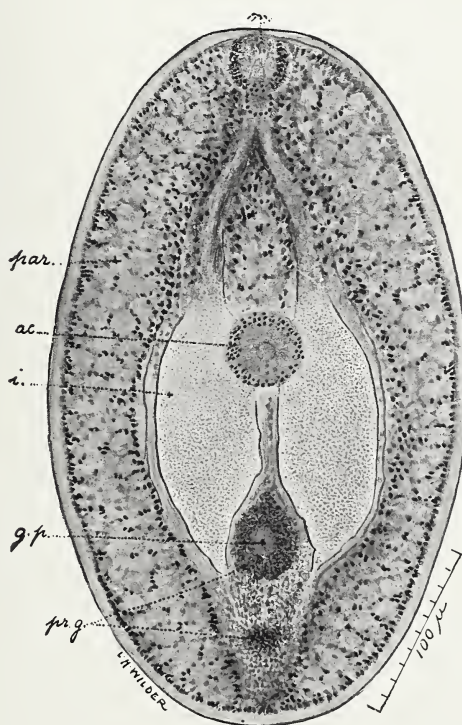


FIG. 45.

FIG. 43.—Diagram showing shell gland, ootyp, vitelloduct, uterus and Laurer's canal. Original.

FIG. 44.—Egg. Enlarged. Original.

FIG. 45.—Ventral view of *Agamodistomum nanus*; ac., acetabulum; g. p., genital pore; i., fusiform intestine; m., oral sucker; par., foamy parenchyma; pr. g., primordium of genital glands.

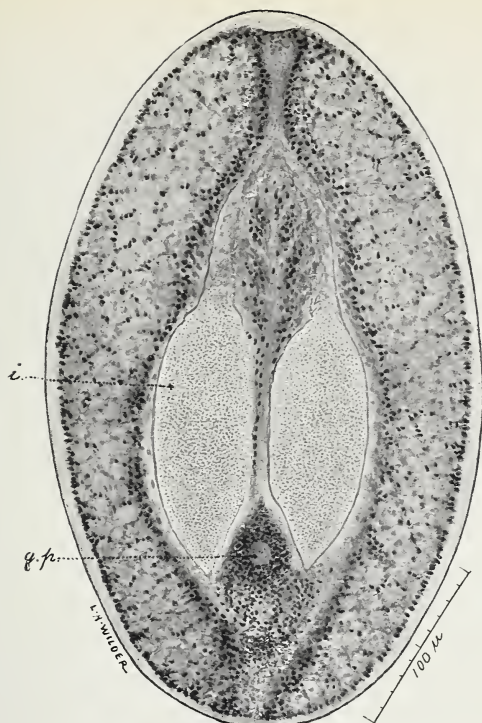


FIG. 46.—Dorsal view of *Agamodistomum nanus*. Lettering as in fig. 45.



FIG. 47.

FIGS. 47-53.—Series of 7 consecutive sagittal sections of cyst with contained parasite, showing anatomy of parasite from its right lateral margin to a plane on the left of the median line. Note the foamlike structure of the parenchyma of the worm, the fusiform intestine (*i.*, 50, 51, 53), the pharynx (*p.*, 51, 52), the acetabulum (*ac.*, 52), ventral genital pore (*g. p.*, 52), genital primordium (*pr. g.*, 52), and the dorsosubterminal excretory pore (*e. p.*, 52).



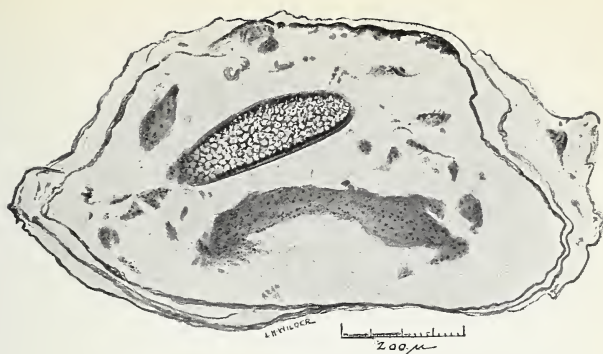


FIG. 48.

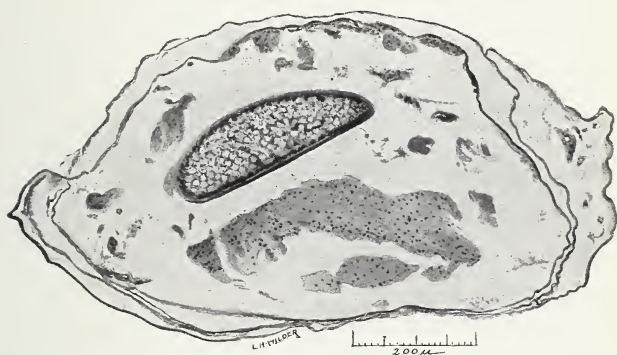


FIG. 49.



FIG. 50.



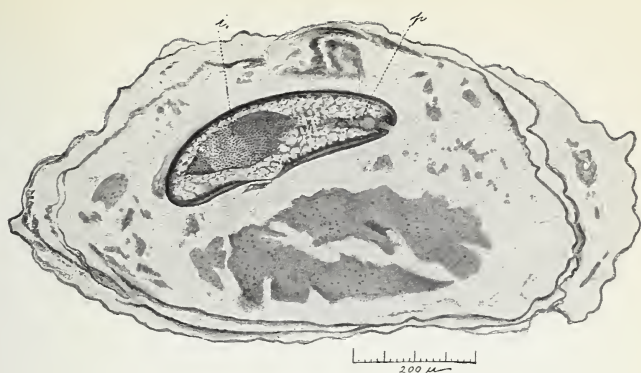


FIG. 51.

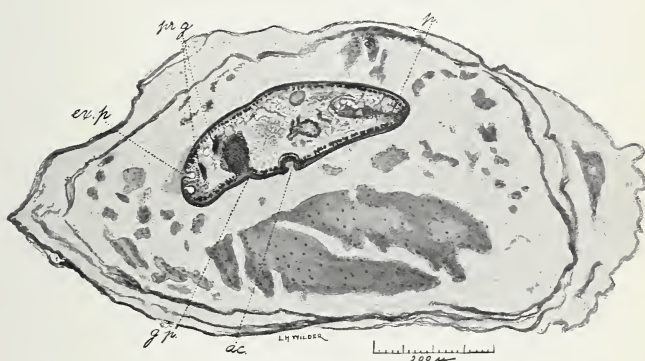


FIG. 52.

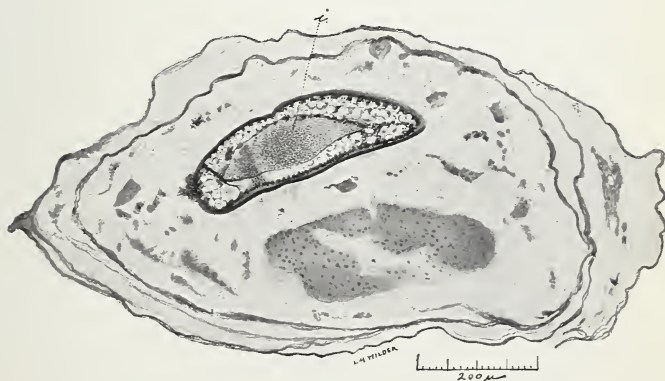


FIG. 53.



FIG. 54.

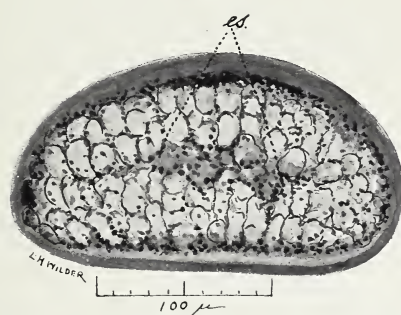


FIG. 55.

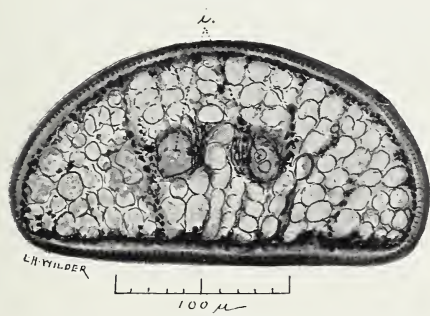


FIG. 56.

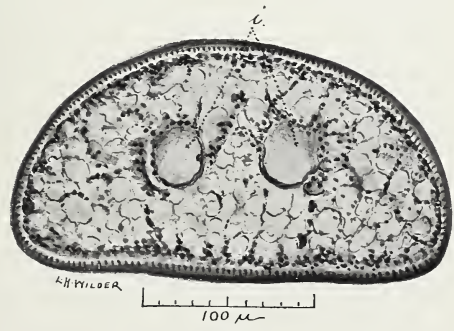


FIG. 57.

FIGS. 54-66.—Series of 13 consecutive transverse sections of *Agamodistomum nanus*, showing the anatomy. Note the esophagus (es., 54), its bifurcation (es., 55), the intestinal ceca (i., 56 to 65), the ventral acetabulum (ac., 60 to 61), the genital primordium (pr. g.) and pore (g. p., 63 to 65), the excretory canals (ex. c., especially in 65).

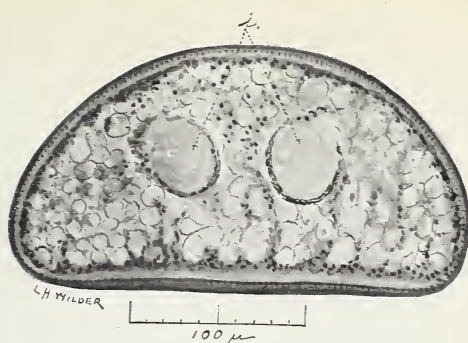


FIG. 58.

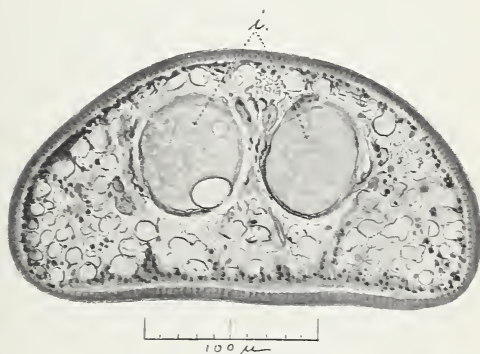


FIG. 59.

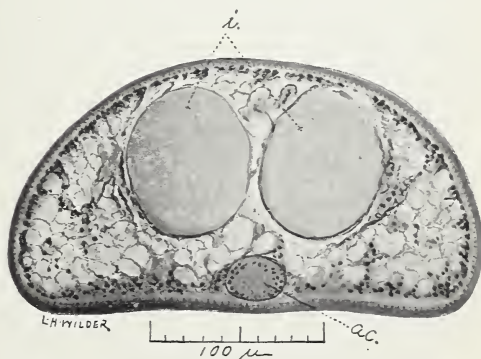


FIG. 60.



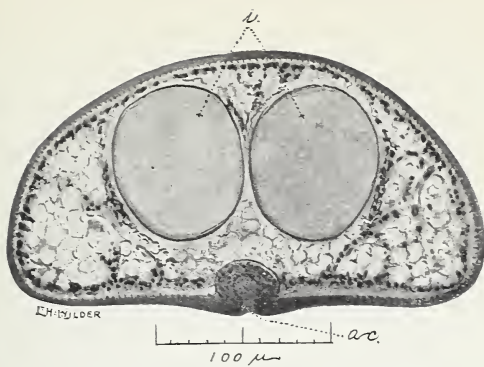


FIG. 61.

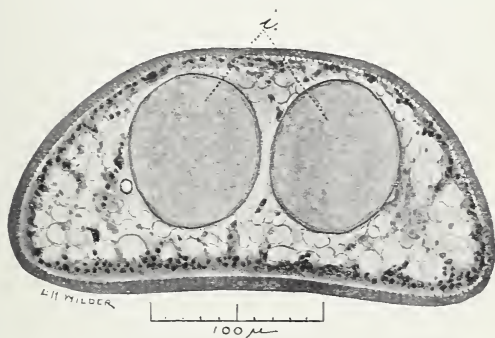


FIG. 62.



FIG. 63.

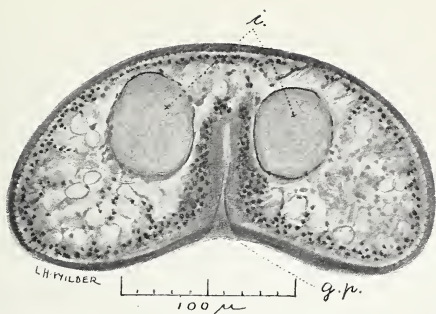


FIG. 64.

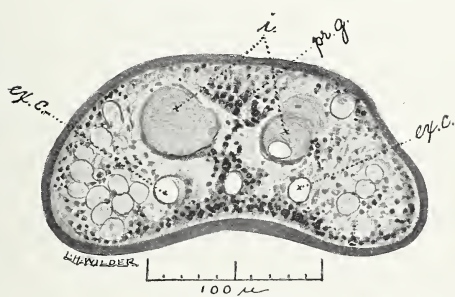


FIG. 65.



FIG. 66.

INDEX TO ZOOLOGICAL NAMES.

	Page.
<i>abietina</i> (<i>Tænia</i>).....	6, 35, 36, 38
<i>ægyptiacus</i> (<i>Gastrodiscus</i>).....	30
<i>africana</i> (<i>Tænia</i>).....	38
<i>Agamodistomum</i>	15, 30, 31
<i>nanus</i>	6, 23, 30
<i>Agamofilaria</i>	15
<i>Agamomermis</i>	15
<i>restiformis</i>	19, 22
<i>Amphistomulum</i>	15
<i>bailleti</i> (<i>Cysticercus</i>).....	15
(<i>Plerocercoides</i>).....	16
<i>Bos</i>	6
<i>taurus</i>	25
<i>taurus indicus</i>	25
<i>calicophorum</i> (<i>Paramphistomum</i>) ..	28
<i>canis</i> (<i>Trichodectes</i>).....	16
<i>Cladorchinæ</i>	23
<i>Clinostomum</i>	6, 30, 33
<i>confusa</i> (<i>Tænia</i>).....	35, 37, 38
<i>crispa</i> (<i>Piestocystis</i>).....	15
<i>Cyathocephalus</i>	11
<i>Cysticercus</i>	15
<i>bailleti</i>	15
<i>elongatus</i>	15
<i>Dibothriocephalidæ</i>	16, 18
<i>Dibothriocephalus</i>	18
<i>dithyridium</i> (<i>Piestocystis</i>).....	15
<i>Dithyridium</i>	15, 16
<i>elongatum</i>	16
<i>lacertæ</i>	15
(<i>lacertæ muralis</i>).....	15
(<i>lacertæ viridis</i>).....	15
<i>Dracunculus</i>	21
<i>medinensis</i>	21
<i>Echinococcus</i>	15
<i>elongatum</i> (<i>Dithyridium</i>).....	16
<i>elongatus</i> (<i>Cysticercus</i>).....	15
<i>Filaria</i>	20
<i>restiformis</i>	6, 19, 20, 22
<i>Filariidæ</i>	22
<i>Francolinus subtorquatus</i>	6, 30
<i>frontalis</i> (<i>Palonia</i>).....	24
<i>Gastrodiscus ægyptiacus</i>	30
<i>Gatesius</i>	18

	Page.
<i>gigas</i> (<i>Strongylus</i>).....	19
<i>Gordiidæ</i>	21
<i>Gordius</i>	20
<i>Gyporphynchus</i>	16
<i>Homalogaster</i>	23, 24, 25
<i>paloniæ</i>	23, 24, 25
<i>philippinensis</i>	6, 23, 24, 25
<i>poirieri</i>	24
<i>hominis</i> (<i>Tænia</i>).....	38
<i>Lacerta</i>	15
<i>lacertæ</i> (<i>Dithyridium</i>).....	15
<i>muralis</i> (<i>Dithyridium</i>).....	15
<i>viridis</i> (<i>Dithyridium</i>).....	15
<i>Ligula mansonii</i>	14
<i>Ligulinæ</i>	18
<i>macropeos</i> (<i>Tænia</i>).....	16
<i>mansonii</i> (<i>Ligula</i>).....	14
(<i>Sparganum</i>).....	14
<i>medinensis</i> (<i>Dracunculus</i>).....	21
<i>mediocanellata</i> (<i>Tænia</i>).....	35, 36, 37
var. <i>abietina</i> (<i>Tænia</i>).....	35
<i>Mermis</i>	20
<i>Mermithidæ</i>	20, 21, 22
<i>nanus</i> (<i>Agamodistomum</i>).....	6, 23, 30
<i>Palonia frontalis</i>	24
<i>paloniæ</i> (<i>Homalogaster</i>).....	23, 24, 25
<i>Paramphistomidæ</i>	23
<i>Paramphistomum calicophorum</i>	28
<i>philippinensis</i> (<i>Homalogaster</i>).....	6, 23, 24, 25
<i>Piestocystis</i>	15
<i>crispa</i>	15
<i>dithyridium</i>	15
<i>rugosa</i>	15
<i>variabilis</i>	15
<i>Plerocercoides</i>	14, 15, 16
<i>bailleti</i>	16
<i>prolifer</i>	14
<i>Plerocercus</i>	14, 15
<i>prolifer</i>	14, 16
<i>poirieri</i> (<i>Homalogaster</i>).....	24
<i>prolifer</i> (<i>Plerocercoides</i>).....	14
(<i>Plerocercus</i>).....	14, 16
(<i>Sparganum</i>) (<i>Gatesius</i>).....	18
<i>proliferum</i> (<i>Sparganum</i>).....	6, 7, 16

	Page.		Page.
<i>restiformis</i> (<i>Agamomermis</i>).....	19, 22	<i>Tænia hominis</i>	38
(<i>Filaria</i>).....	6, 19, 20, 22	<i>macropeos</i>	16
<i>rugosa</i> (<i>Piestocystis</i>).....	15	<i>mediocanellata</i>	35, 36, 37
<i>saginata</i> (<i>Tænia</i>).....	6, 35, 37, 38	<i>mediocanellata</i> var. <i>abietina</i> ..	35
<i>abietina</i> (<i>Tænia</i>)....	35, 36, 37, 38	<i>saginata</i>	6, 35, 37, 38
<i>solium</i> (<i>Tænia</i>).....	35, 36, 38	<i>saginata abietina</i>	35, 36, 37, 38
var. <i>abietina</i> (<i>Tænia</i>).....	35, 36	<i>solium</i>	35, 36, 38
<i>Sparganum</i>	14, 15, 16, 17, 18	<i>solium</i> var. <i>abietina</i>	35, 36
(<i>Gatesius</i>) <i>proliferum</i> ...	18	<i>unilateralis</i>	16
<i>mansonii</i>	14	<i>taurus</i> (<i>Bos</i>).....	25
<i>proliferum</i>	6, 7, 16	<i>indicus</i> (<i>Bos</i>).....	25
<i>Strongylus gigas</i>	19	<i>Tetrarhynchus</i>	15
<i>subtorquatus</i> (<i>Francolinus</i>).....	6, 30	<i>Trichodectes canis</i>	16
<i>Tænia abietina</i>	6, 35, 36, 38	<i>unilateralis</i> (<i>Tænia</i>).....	16
<i>africana</i>	38	<i>variabilis</i> (<i>Piestocystis</i>).....	15
<i>confusa</i>	35, 37, 38		

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The following *bulletins* [Bulls. Nos. 1-7, 1900 to 1902, Hyg. Lab., U. S. Marine-Hosp. Serv., Wash.] have been issued.

No. 1.—Preliminary note on the viability of the *Bacillus pestis*. By M. J. Rosenau.

No. 2.—Formalin disinfection of baggage without apparatus. By M. J. Rosenau.

No. 3.—Sulphur dioxid as a germicidal agent. By H. D. Geddings.

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No. 5.—An investigation of a pathogenic microbe (*B. typhi murium* Danyz) applied to the destruction of rats. By M. J. Rosenau.

No. 6.—Disinfection against mosquitoes with formaldehyde and sulphur dioxid. By M. J. Rosenau.

No. 7.—Laboratory technique: Ring test for indol, by S. B. Grubbs and Edward Francis; Collodium sacs, by S. B. Grubbs and Edward Francis; Microphotography with simple apparatus, by H. B. Parker.

By act of Congress approved July 1, 1902, the name of the "United States Marine-Hospital Service" was changed to the "Public Health and Marine-Hospital Service of the United States," and three new divisions were added to the Hygienic Laboratory.

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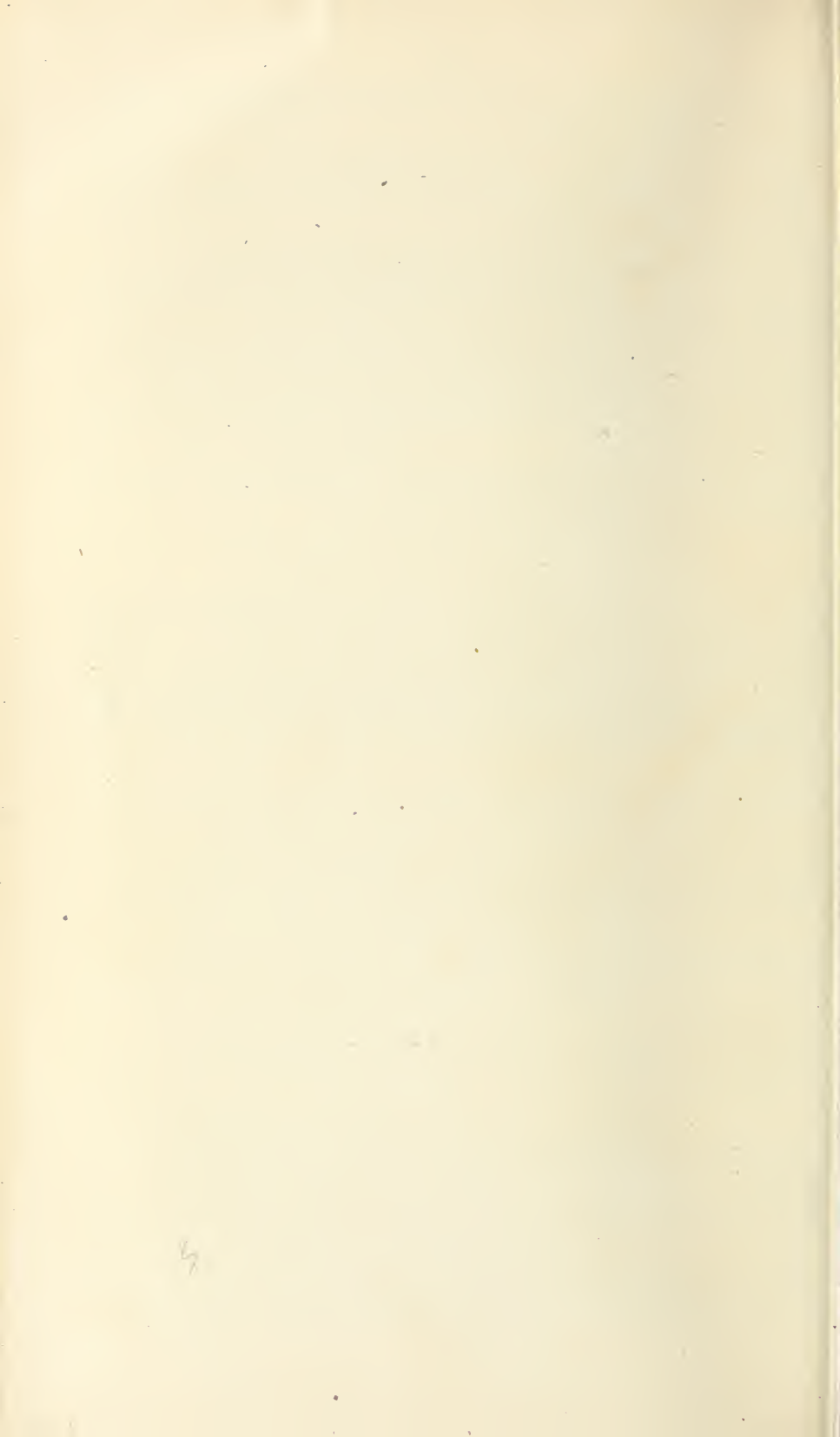
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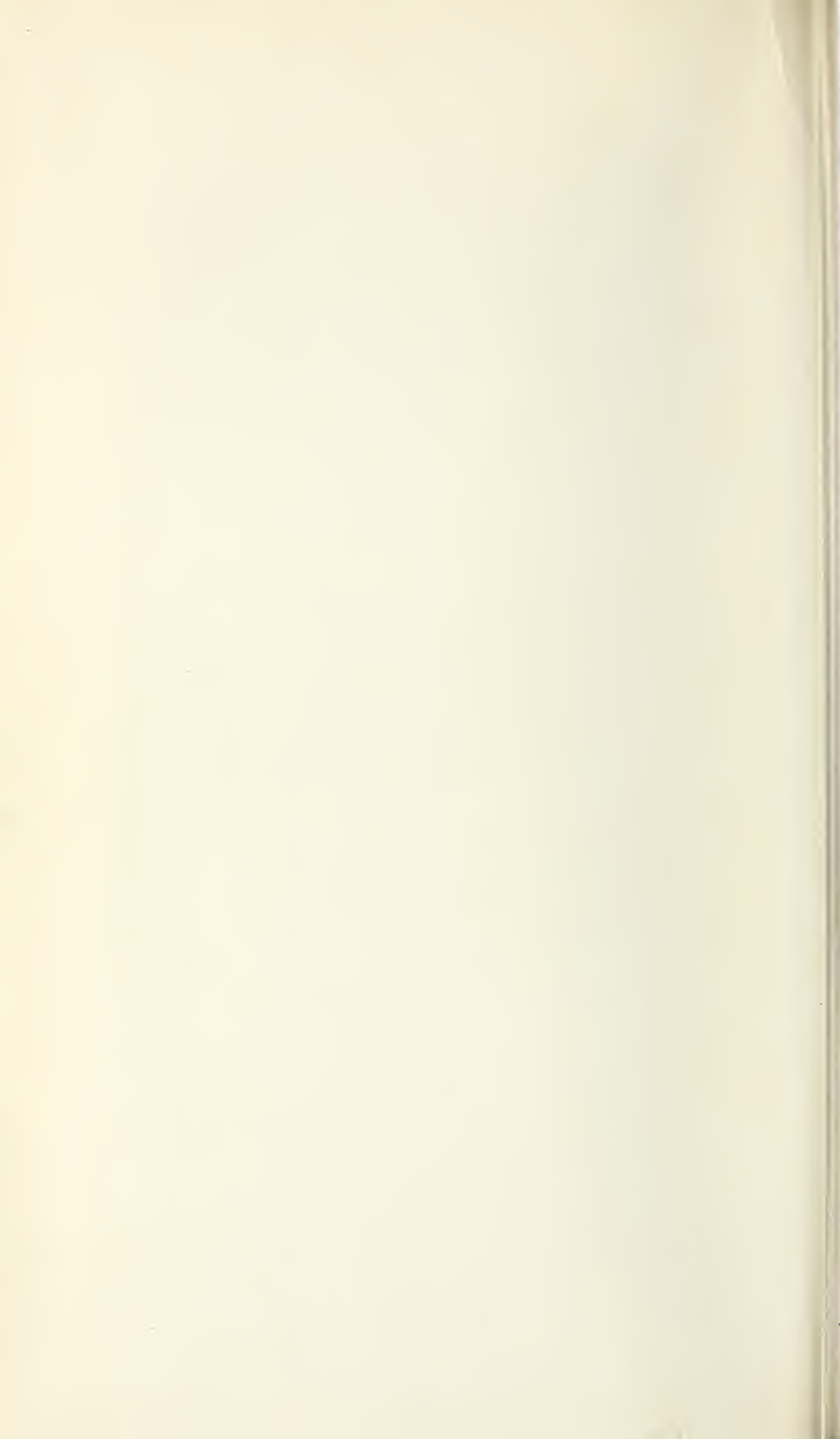
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